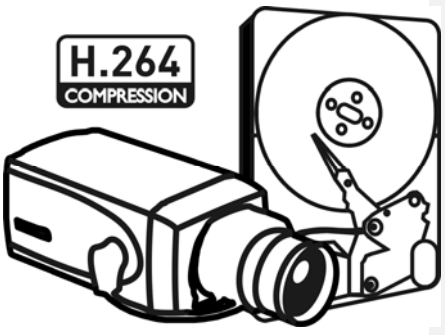
Premium Entry Level Real-Time DVR

User's Manual

- H.264 Stand-Alone DVR
- Independent Dual Display
- Triple Streaming
- Auto IP Detection



Preface

We welcome you as a new user of the world's best digital video recorder (DVR), and the leading Digital Video Surveillance System. For effective usage, please read this manual carefully. For future reference, please keep this manual close to hand.

Copyright / Authentication / Trademark / Limited Warranty

Copyright

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Authentication

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Trademark

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Limited Warranty

- The manufacturer, importer and agent shall not be responsible for accidental damage (including injury) and other damage caused by inappropriate use or operation of this product.
- The information in this manual is prepared based on the current specifications for the product. The manufacturer is currently adding new functions and will continue to upgrade the product with new technology. All specifications may be changed without notice to individual users.

Cautions

We strongly recommend that users read all safety cautions carefully before operating the product, to operate the product appropriately.

Since the indicated cautions contain critical safety information, they must be fully complied with. The cautions are categorized into Danger, Warning, Caution and Important.

Danger	Risk of death or serious injury. This is the highest priority danger warning.
Warning	Risk of serious or lesser degree of injury. May also cause damage to the product or to property.
Caution	Risk of minor injury or damage.
Important	Requirements or limitations regarding operation. Users are recommended to read the relevant details carefully so as to operate the product properly and without harm.

The above cautions indicate the degree of damage that may occur due to inappropriate use of the system.

Danger	Risk of death or serious injury. This is the highest priority danger warning.

- RISK OF EXPLOSION IF BATTERY IS REPLACED BY INCORRECT TYPE. DISPOSE OF USED BATTERY ACCORDING TO THE INSTRCTIONS.
- THIS EQUIPMENT IS INDOOR USE AND ALL THE COMMUNICATION WIRINGS ARE LIMITED TO INSIDE OF THE BUILDING.
- Please connect the power cord only to the type of AC outlet indicated in the manual or product specification. If connected to other types of power outlet, fire and electric shock may result.
- Do not expose the product to moisture and dampness. Doing so may result in fire and electric shock.
- Do not place heavy objects on top of the power cord. Damage to the power cord may result in fire and electric shock.
- Do not place containers with liquid or small metal objects on top of the product. Liquid or small metal objects getting into the unit may lead to fire and electric shock.
- Do not score, bend, twist, pull or heat the power cord. Damage to the power cord may lead to fire and electric shock.
- Do not remove the top casing of the product. Doing so may result in electric shock. If internal examination and maintenance are deemed necessary, contact the authorized system vendors or installers.
- Do not modify the product in any way. Doing so may lead to fire and electric shock.
- In case of lightning, immediately turn off the power switch and remove the power cord from the power outlet. Failure to do so may result in fire and electric shock.
- Please use only the power cord supplied with the product. Use of other power cords may result in fire and electric shock.
- In case of smoke, smell or noise, immediately turn off the power switch and remove the power cord from the power outlet. Continued operation of the product may result in fire and electric shock. Request a maintenance service from the authorized system vendors or installers.
- If the product is dropped or damaged, turn off the power switch and remove the power cord from the power outlet. Continued operation of the product may result in fire and electric shock. Users should request a maintenance service from the authorized system vendors or installers.
- Do not touch the product with wet hands. Doing so may result in electric shock.

Warning	Risk of serious or lesser degree of injury. May also cause damage to the product or to property.

- Do not leave the power cord or other cables in passageways. Passers-by may trip and fall.
- Avoid contact with water or beverages. Contact with water or beverages may result in damage that cannot be repaired.
- In case of lightning, immediately turn off the power switch and remove the power cord from the power outlet. The product may otherwise be damaged.
- Excessive current from the product and the camera may result in an electric shock. Connect the power cord to an external device only when the products themselves are disconnected from their power supply.

Caution	Risk of minor injury or damage.

- If a foreign substance is stuck to the product, remove it using a soft cloth or tissue. Do not use chemical agents (thinner, solvent, etc.) to remove the substance.
- Do not operate or store the product in the following places.
  - An area that is either too cold or too hot
  - An area of high humidity, or in front of an air-conditioner, or in places subject to sudden temperature changes
  - An area where there is excessive dust
  - Areas where heat from the product cannot be emitted through both of the product's side ventilation openings
- Do not place credit cards/telephone cards/bank account books/tickets and other objects with magnetic properties near the product.
- Static electricity may cause damage to the internal parts of the product. Please remove static electricity from your body before touching the rear panel and internal electronic parts of the product.
- If this product is damaged beyond repair or reaches its maximum service life, dispose of it in compliance with local laws and regulations regarding the disposal of lead and plastic waste.

Important	Requirements or limitations regarding operation. Users are recommended to read the relevant details carefully so as to operate the product properly and without harm.

- The product may not work properly if the power source is unstable or and if electric shock occurs. Make sure the correct rated power is available.
- The product is designed to be proof against electric power failures; however, damage may occur as a result of power failure. Current data may be damaged or data might not be recorded. Make sure to use an Uninterruptible Power Supply (UPS).
- Since the product is designed to record video data on the hard disk, an error in the hard disk or other miscellaneous errors might prevent the product from recording properly. Periodic maintenance is required for proper operation of the product.
- The product is designed for users to configure their own interface. However a user configuration error could lead to operation malfunction. This product should be set up by certified installers only.
- Since the product is connected - and tightly coupled - to exterior accessories (camera, sensor, LAN, Hard Disk, etc.), there is a risk of malfunction from external causes. Ensure periodic maintenance by the certified installers.
- Use the rack mounting handle provided with the product for installation.
- In this product, 1 Kbyte equals 1,024 bytes, 1 Mbyte equals 1,048,576 bytes and 1 Gbyte equals 1,073,700,000 bytes.

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Chapter 1. Introduction

1. The System

This product is targeted at expanding DVR market. As the market is expanding from Professional to Consumer and into wider sectors, both price and feature oriented products are highly demanded in these days across different market sectors. This product is designed to fulfill these various aspects of different market sectors. Highly affordable, reliable and usable DVR series to fulfill basic needs of DVR with the most satisfactions.

2. General Features

- True H.264 Standard Video Compression
- Embedded Linux System to give you the Ultimate Reliability
- Dedicated DB Structure for Stability
- Various Recording Resolution D1/Half D1/CIF
- CMS (Central Monitoring System)
- Easy Setup same like DVR GUI in CMS
- Web Monitoring, Searching and Setup
- Own Media Player for Backup Playback
- Two USB Port for Mouse operation, Multi USB Hub and Backup
- Up to Two SATA HDD and No Limitation of Capacity
- Two- Way Audio
- Multiple DVRs can be operated with One Keyboard Controller
- Text-In & Relay Output Support
- Real Time Recording and Multi Ch. Playback
- Triple Streaming / Digital Zoom
- iPhone, Android Phone Support
- **Independent Dual Display**

Dual Display allows user to use both VGA and CVBS outputs same time with different display options. Two different and individual display modes can be set on each monitor output. Also Live Monitoring on one monitor and Playback on another Monitor can be displayed and controlled at the same time. This function will provide such high flexibility and efficiency for monitoring options for users.

Note: This manual covers the 4-channel, 8-channel and 16-channel DVRs. The DVRs are identical except for the number of cameras, audio inputs and alarms. The GUI illustrations and descriptions in this manual are based on the 4 channel model.

3. Specification

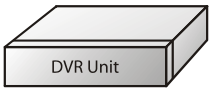
Model		4 Channel Premium DVR
Video	In	4 BNC (without Loop-out)
	Out	1 VGA, 1 CVBS (Dual Display)
Audio	In	4 RCA (Line-In)
	Out	1 RCA (Line-Out)
Device	Sensor In	4 TTL (3+Emergency)
	Alarm Out	2 TTL
	I/O Interface	RS232, RS485, USB x 2
Display	Speed	Real Time
	Resolution	720 x 480 (NTSC), 720 x 576 (PAL)
	Split Screen	1, 4, PIP, Digital Zoom
Recording	Compression	H.264 Codec
	Speed / Resolution	120fps@CIF(NTSC) 100fps@CIF(PAL) 120fps@Half D1(NTSC) 100fps@Half D1(PAL) 60fps@D1(NTSC) 50fps@D1(PAL)
	Picture Quality	Very High, High, Standard, Low
	Mode	Time-lapse, Event, Time & Event, Emergency (E.REC)
Playback	Display	1, 4, Digital Zoom
	Search Mode	Calendar Search, Event Search, Text-In Search, Go to Time
	Playback Mode	Multi Channel Normal & Reverse Play, RW & FF (x2, x4, x8, x16, x32), Frame to Frame, Pause
Network	Interface	Ethernet (10/100 Base)
	Protocol	TCP/IP, HTTP, DHCP, ADSL(PPPoE), RTP/RTSP
	Application	Live, Playback, Setup, Notification (Callback, E-Mail)
	Web Browse	Internet Explorer 7 or higher
	Mobile Support	iPhone, Android Phone (Real Streaming)
Storage		2 x SATA HDD
Backup		External HDD(USB), External USB Memory
Control		Front Panel Button, USB Mouse, IR Remote Controller, Joystick Controller
OSD		Graphic User Interface (Multilingual)
Approval		FCC, CE, KCC
ROHS		ROHS Compliance
Power Consumption		DC12V, 3.33A (40W)
Operating Temperature		5°C ~ 40°C / 41°F~104°F
Operating Humidity		0%~80% / non-condensing
Dimension		340(W)x67(H)x267(D)mm / 13.39(W)x2.64(H)x10.43(D)inch
Weight		2Kg / 4.4lbs (without HDD)

Model		8 Channel Premium DVR	16 Channel Premium DVR
Video	In	8 BNC (Loop-out option)	16 BNC (Loop-out option)
	Out	1 VGA, 1 CVBS (Dual Display)	
Audio	In	8 RCA (Line in) - Option	
	Out	1 RCA (Line Out)	
Device	Sensor In	4 TTL (3+Emergency)	
	Alarm Out	2 TTL	
	I/O Interface	RS232, RS485, USB x 2	
Display	Speed	Real Time	
	Resolution	720 x 480 (NTSC), 720 x 576 (PAL)	
	Split Screen	1,4,6,9,PIP,Digital Zoom	1,4,6,8,9,13,16,PIP, Digital Zoom
Recording	Compression	H.264 Codec	
	Speed / Resolution	240fps@CIF(NTSC) 200fps@CIF(PAL) 240fps@Half D1(NTSC) 200fps@Half D1(PAL) 120fps@D1(NTSC) 100fps@D1(PAL)	480fps@CIF(NTSC) 400fps@CIF(PAL) 240fps@Half D1(NTSC) 200fps@Half D1(PAL) 120fps@D1(NTSC) 100fps@D1(PAL)
	Picture Quality	Very High, High, Standard, Low	
	Mode	Time-lapse, Event, Time & Event, Emergency (E.REC)	
Playback	Display	1, 4, 6, 9, Digital Zoom	1,4,6,8,9,13,16,Digital Zoom
	Search Mode	Calendar Search, Event Search, Text-In Search, Go to Time	
	Playback Mode	Multi Channel Normal & Reverse Play, RW & FF (x2, x4, x8, x16, x32), Frame to Frame, Pause	
Network	Interface	Ethernet (10/100 Base)	
	Protocol	TCP/IP, HTTP, DHCP, ADSL(PPPoE), RTP/RTSP	
	Application	Live, Playback, Setup, Notification (Callback, E-Mail)	
	Web Browse	Internet Explorer 7 or higher	
	Mobile Support	iPhone, Android Phone (Real Streaming)	
Storage		2 x SATA HDD	
Backup		External HDD(USB), External USB Memory	
Control		Front Panel Button, USB Mouse, IR Remote Controller, Joystick Controller	
OSD		Graphic User Interface (Multilingual)	
Approval		FCC, CE, KCC	
ROHS		ROHS Compliance	
Power Consumption		DC12V, 3.33 (40W)	
Operating Temperature		5°C ~ 40°C / 41°F~104°F	
Operating Humidity		0%~80% / non-condensing	
Dimension		340(W)x67(H)x267(D)mm / 13.39(W)x2.64(H)x10.43(D)inch	
Weight		2Kg / 4.4lb (without HDD)	

Chapter 2. System Installation

1. Package Contents

The following components are included in the product:

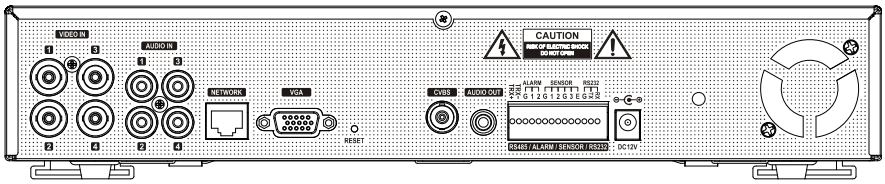
DVR Unit	
DC Adaptor	
Power Cord	
Remote Controller	
Quick Guide	
Customer Card	

Note: Please download Users' Guide and Remote Client S/W from the address written on a customer card included in the package.

2. Connecting Devices

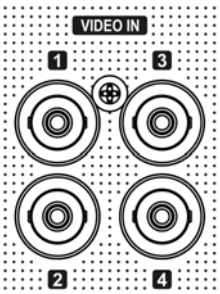
2-1. 4 Channel Premium DVR

The rear panel of the 4 channel premium DVR comprises the following:



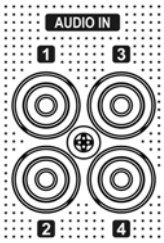
• **Front USB**: Two USB ports are provided to connect external devices like HDD, Flash memory for Backup, System upgrade or USB mouse on the front panel.

Video Input



Connect the coaxial cables from the cameras to the BNC video connectors.

Audio Input

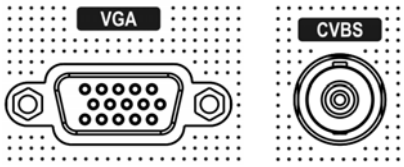


The DVR can record audio up to 4 sources. Connect the audio sources to the Audio-In RCA connectors. All channels need external pre-amplifiers.
It is the user's responsibility to determine if local laws and regulations permit recording audio.

Audio Out

The DVR does not have amplified audio output, so you will need a speaker with and amplifier.

Video Output



Connect the monitors to VGA and CVBS out connector. Dual Display allows user to use both VGA and CVBS outputs same time with different display options. Two different and individual display modes can be set on each monitor output. Also Live Monitoring on one monitor and Playback on another Monitor can be displayed and controlled at the same time. This function will provide such high flexibility and efficiency for monitoring options for users.

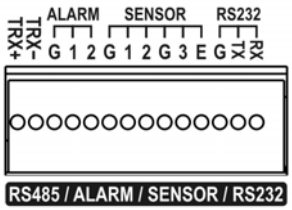
Note: VGA Monitor is set as a main monitor when system boots up. To move to another monitor (CVBS) and control it, please use one of following control options.

1. Press and Hold Display button for 3 seconds.
2. Click 2 mouse buttons at the same time.
3. Choose “Move Display Focus” on the contextual menu on GUI.

Please refer to following list for independent dual display/control options.

VGA Monitor	**CVBS Monitor**
LIVE	LIVE (O)
	PLAYBACK (O)
	PTZ (O)
	DISIGTAL SIGNAGE (O)
PLAYBACK	LIVE (O)
	PLAYBACK (X)
	PTZ (O)
	DISIGTAL SIGNAGE (X)
PTZ	LIVE (O)
	PLAYBACK (O)
	PTZ (O)
	DISIGTAL SIGNAGE (O)
DIGITAL SIGNAGE	LIVE (O)
	PLAYBACK (X)
	PTZ (O)
	DISIGTAL SIGNAGE (O)

RS485 / ALARM / SENSOR



The RS485 connector can be used to control PTZ cameras. The DVR can also be controlled remotely by a control keyboard.

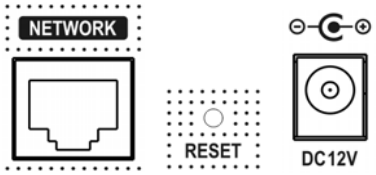
2 alarm output connectors are provided to connect external alarms such as sirens or lights. Alarm output connectors are TTL signals.

3 sensor input and 1 emergency sensor input connectors are provided to connect external devices. You can use sensors to signal the DVR with event. The emergency sensor is designed for Emergency recording only. It will follow Emergency recording setting when it is triggered.

An RS-232C connector is provided to connect an ATM or POS machine for Text-In function.

To make connections on the terminal block, press and hold the button and insert the wire in the hole below the button.

ETC

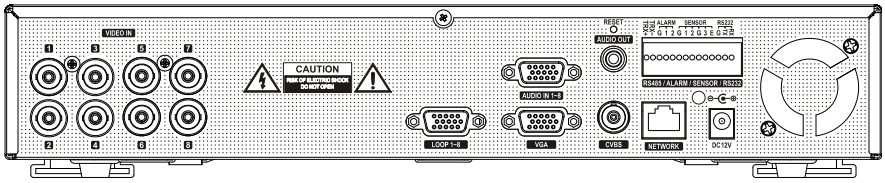


- **Network**: Connect a Cat5 cable with an RJ-45 connector to the DVR connector for remote monitoring, remote playback, remote setup. See ***Chapter 3-2. DVR Configuration*** for configuring the Network connections.
- **Reset**: The DVR has a Reset switch that will only be used to return all the settings to the original factory settings. To reset the unit, turn the DVR off first. Turn it on again while poking the straightened paperclip in the reset hole. Hold the switch until the DVR is initializing.
- **Power Connector**: Connect adapter cable to the power connector on the rear panel. (DC12V, 3.33A) Input AC power to the adapter. (free voltage from 100V to 240V, 50/60Hz)

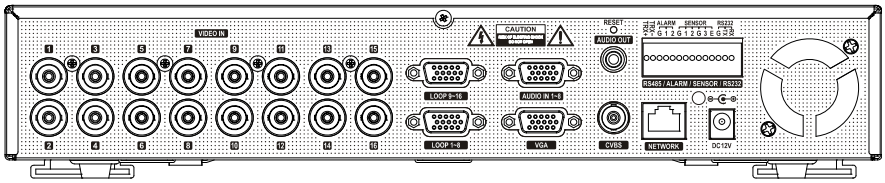
2-2. 8/16 Channel Premium DVR

The rear panels of the 6/18 channel premium DVR comprise the following:

[8 Channel Premium Model]

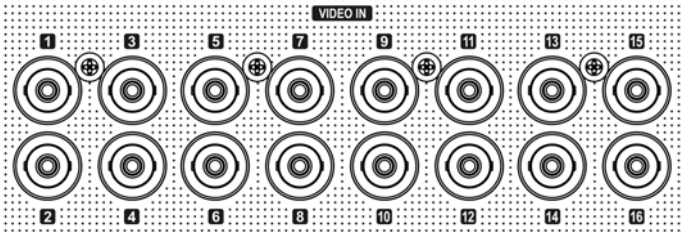


[16 Channel Premium Model]



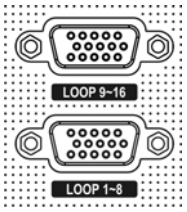
- **Front USB**: Two USB ports are provided to connect external devices like HDD, Flash memory for Backup, System upgrade or USB mouse on the front panel. A USB mouse can be connected only front panel USB port dedicated only for mouse.

Video Input



Connect the coaxial cables from the cameras to the BNC video connectors.

Loop-Through Video

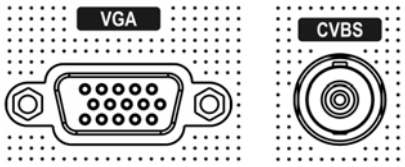


Connect the coaxial cables from the Loop BNC connector to another device.
Note: To use Loop option, additional looping cable will be needed. Please contact your supplier.

Audio Input

The DVR can record audio up to 8 sources. Connect the audio sources to the Audio-In Multi-connectors. All channels need external pre-amplifiers. (Option – Audio cable)
It is the user's responsibility to determine if local laws and regulations permit recording audio.

Video Output



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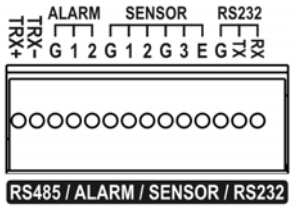
RS485 / ALARM / SENSOR



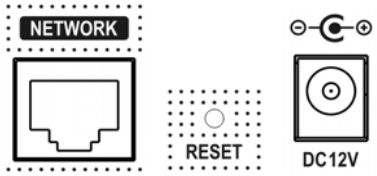
The RS485 connector can be used to control PTZ cameras. The DVR can also be controlled remotely by a control keyboard.

2 alarm output connectors are provided to connect external alarms such as sirens or lights. Alarm output connectors are TTL signals.

3 sensor input and 1 emergency sensor input connectors are provided to connect external devices. You can use sensors to signal the DVR with event. The emergency sensor is designed for Emergency recording only. It will follow Emergency recording setting when it is triggered.

An RS-232C connector is provided to connect an ATM or POS machine for Text-In function.
To make connections on the terminal block, press and hold the button and insert the wire in the hole below the button.

ETC



- **Network**: Connect a Cat5 cable with an RJ-45 connector to the DVR connector for remote monitoring, remote playback, remote setup. See ***Chapter 3-2. DVR Configuration*** for configuring the Network connections.
- **Reset**: The DVR has a Reset switch that will only be used to return all the settings to the original factory settings. To reset the unit, turn the DVR off first. Turn it on again while poking the straightened paperclip in the reset hole. Hold the switch until the DVR is initializing.
- **Power Connector**: Connect adapter cable to the power connector on the rear panel. (DC12V, 3.33A) Input AC power to the adapter. (free voltage from 100V to 240V, 50/60Hz)

3. Cautions

- Avoid installing the product where there are direct rays or it is hot by locating near from heat generator. (May cause fire)
- Do not put vase, flowerpot, cup, cosmetics, drug, and anything the contain water on product. (May cause fire or electric shock, and it may injure people by falling)
- Do not insert or drop any metal object (coin, hair pin) or flammable object (match, paper) into air hole. (May cause fire or electric shock)
- Do not put any heavy object on it. (May injure people by being fell or destroyed.)
- Put power plug surely not to be moved. (If not, this may cause fire.)
- Unplug power plug and antenna when there are thunders and lightening. (May cause fire.)
- For cleaning the product, wipe surface with dry towel. Using chemical agent or cleaner may change the color and unpeel paint.
- Do not put several plugs at same time. (May cause electric shock.) If there is smoke or strange smell, stop operation. In this case, turn the power off and unplug it, and then contact our service center. (If you keep using it, this may cause fire or electric shock.)
- Do not unplug by pulling cord. (If cord is damaged, it may cause fire or electric shock.)
- Do not plug or unplug with wet hands. (May cause electric shock.)
- Keep the power cord untwisted. (May cause fire or electric shock.)
- Use proper adapter. (Using too much electric power may cause fire or electric shock.)
- Do not install it at where exposed to rain and wind and water drop. (May cause fire, electric shock and transformation.)
- Keep away from fire. (May cause fire.)
- Do not disassemble or remodel on your own. (May cause malfunction or electric shock.)
- Do not put next to flammable materials like flammable spray. (May cause fire.)
- Do not install it at a place with too much dirt. (May cause fire.)
- Do not install it on unstable places like shaking table and inclined place or shaking place. (May injure users by falling down or being upside down.)
- Do not put an heavy object on power cord or avoid it from being pressed by the device. (May cause fire or electric shock.)
- In case of using extension cord, do not use several devices at same time. (May cause fire with abnormal heating of extension.)
- When there are dirt on power plug pin or power outlet, clean it nicely. (May cause fire.)
- Do not damage on power cord or plug, and bend or twist or pull too much, and put it between other objects or heat. If power outlet insertion part is not tight, do not use it. (May cause fire or electric shock.)
- Do not drop or give a shock to the product. (May injure people or cause malfunction.)
- Do not touch power adaptor or signal controller. (May cause electric shock.)
- Do not put any object too close to block cooling fan. (May cause fire.)
- In case of exchanging batteries with improper type, there might be danger of explosion.

- For used batteries, throw away separately from other garbage.
- When you take out batteries, avoid children from eating them by mistake. Keep them away from children. (If a child ate them, contact a doctor right away.)

Chapter 3. Using DVR

1. Basic Operation

1-1. Front Panel & IR Remote Controller

The DVR should be correctly installed before proceeding. The location, shape of the buttons and function keys available may vary depending on the DVR model. Only some of main buttons most commonly used can be found on the front panel.

Control	Description
USB Port	Two USB ports are located on the front panel.
Camera Buttons (1~0)	Pressing camera buttons and Enter button will cause the selected camera to display full screen. Buttons are used to enter passwords.
MENU / EXIT Button	Enters the Setup Menu. User will need to enter the authorized password to assess Setup. In Playback mode, MENU button displays the Playback Menu.
DISPLAY Button	Changes the screen display mode in the current screen or playback screen.
SEQUENCE Button	Displays live channels sequentially.
Up, Down, Left, Right Arrow, ENTER Buttons	These are used to change settings for the product in MENU mode or used in PTZ control mode. (pan, tilt)
BACKUP Button	Copies recorded data to an external storage device.
PLAYBACK Button	Changes to the playback mode from the live mode.
❚❚ PAUSE Button	Under playback mode, the button can be used to pause the playback screen. - Display menu to save PTZ preset under PTZ mode.
► PLAY Button	Plays the video forward. Press the button repeatedly to increase play speed up to max 32 times (1, 2, 4, 8, 16, 32 times) faster. Use this button to move right when setting the menu. - Focus on far distance under PTZ mode.
◄ R.PLAY Button	Plays the video backward. Press the button repeatedly to increase play speed up to max 32 times (1, 2, 4, 8, 16, 32 times) faster. Use this button to move right when setting the menu. - Zoom Out under PTZ mode.
❚► STEP FORWARD Button	Move forward by one frame under Pause. Use this button to move up when setting the menu. - Focus on near distance under PTZ mode.
◄❚ STEP BACKWARD Button	Move backward by one frame under Pause. Use this button to move down when setting the menu. - Zoom In under PTZ mode.

PTZ Button	Changes to the PTZ control mode from the live mode.
ZOOM Button	Zooms the current image on the screen.
PIP Button	Changes to PIP screen mode from live screen.
AUDIO Button	Selects a camera for live & playback audio output.
OSD Button	Turns on/off the OSD display.
LOG Button	Checks the system's log information.
ID Button	Selects the DVR system ID. (Remote controller only)
E.REC Button	Pressing the E.REC button stars Emergency Recording Mode of all camera channels, and displays "!" on the screen. Pressing the button again will stop E.REC mode.
Status LED	Power, HDD, Network, Alarm

1-2. Turning on the System

Connecting the power cord will turn on the power of DVR. It will take approximately 10 to 30 seconds for the system to be initialized. Once the system is initialized, it will display live screen, and begin to record video automatically.

Note: To turn off the system, select SHUTDOWN under main menu (MENU > SHUTDOWN) and unplug the power cord when the shutdown message appears.

Note: When installing the HDD for the first time, the HDD should be formatted first.
"MENU > RECORD > Storage > HDD format"

1-3. Menu Bar

The menu bar will appear on the bottom of the screen as shown below.

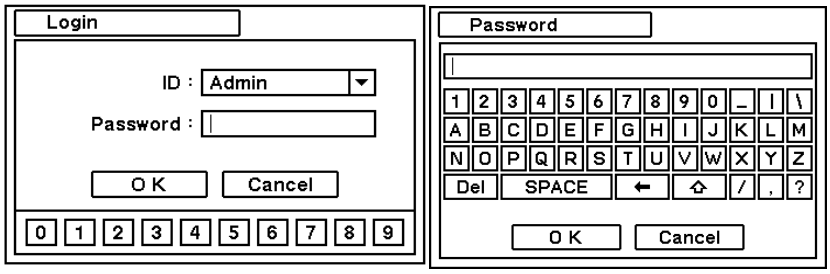
MENU	Pressing the Menu will bring up the main menu list.
240GB/240GB	Shows the % of HDD being used.
	Turns on when the HDD is set to be overwritten.
	Sequence display mode.
	Turns on when the system is connected to the network.
	Turns on when the Alarm is being activated.
	E.REC (Emergency Recording) Mode.
2009-04-03 07:31:32 PM	Displays date & time.

	IR Remote Controller

1-4. Display Icons

	No Recording
	Recording (Red)
	E.REC (Emergency Recording)
	Event Recording (Red)
	Pre Event Recording (Blue)
	Motion Detection
	Sensor Detection
	Text In
	PTZ Camera
	Instant Backup
	Clip Maker (Blue)
	Backup (Red)
	Video Loss

1-5. User or Admin Login



Press MENU to enter main menu screen. Login in screen appears to enter ID and Password. Password can be set up to 8 numbers by the combination of numbers from 0 to 9. Click numbers on the bottom to enter password when using a mouse. Click "..." button to pop up virtual keyboard when using the front buttons or remote controller to enter password.
The factory default password is '1111' so press "1111" and OK to log in to the system for a first time log in. Password can be set under password set up option (MENU > SYSTEM > User).
System will be automatically log out if it is not in-use for sometime. This "Auto Logout Time" can be set under password set up option (MENU > SYSTEM > User).

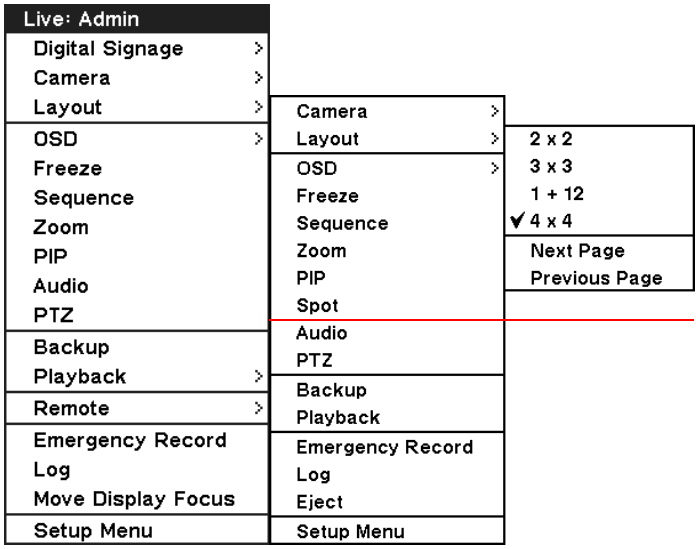
1-6. The Main Menu

The Main Menu of DVR consists of SYSTEM, DEVICE, DISPLAY, RECORD, NETWORK and EVENT. And each menu consists of various sub menus that allow detail set up of the system. Use Mouse, Remote Controller or Front Buttons to access to each menu.

Note: Please make sure the system log out is done when the system setting or operation completed to prevent any unauthorized changes of system settings or operations.

MAIN MENU	SYSTEM	Information
		Date & Time
		User
		Quick Setup
		System Log
	DEVICE	Camera
		Audio
		Alarm
		Keyboard
		RS232 & RS485
	DISPLAY	Display
		VGA
		CVBS
		Digital Signage
	RECORD	Storage
		Record
		Utilities
	NETWORK	Address
		DDNS
		Notification
		Transmission
	EVENT	Sensor
		Motion
		Video Loss
		Text-In
		System
	LOGOUT	
	SHUTDOWN	

1-7. Contextual Menu



Additional Contextual Menu screen appears by pressing right button on the Mouse.

Digital Signage: Select Digital Signage output either on VGA or CVBS.
Camera : Select camera no.
Layout : Select display mode (8/16 ch. DVR Only)
OSD : Select OSD display option
Text-In Info.: ~~Text-In OSD를 켜거나 끌 수 있음~~On/Off Text-In OSD.
Freeze : Pause current image display
Sequence : Begin sequence display
Zoom : Zoom in image (x2, x4, x8)
PIP : Select PIP mode and camera
Audio : Select Audio outs
PTZ : Select PTZ options
Backup : Select backup options
Playback : Playback recorded data
E. Record : Start Emergency Recording
Log : Select System/Event log
Move Display Focus: Move control focus (e.g. setup, OSD and etc) from one monitor to another when using both CVBS and VGA at the same time.
Setup Menu: Enter Main setup menu

For more information on Contextual Menu please refer to 2. DVR Configuration.

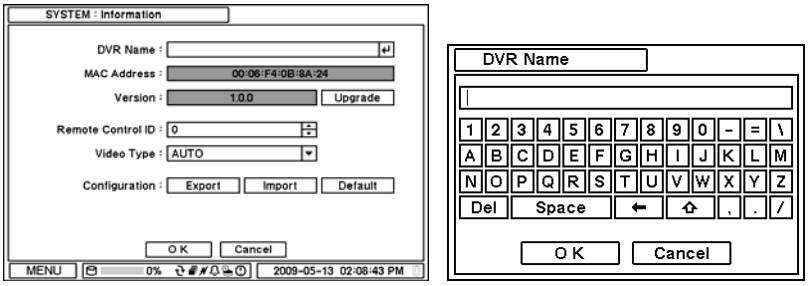
Formatada: □□ : @Bold

2. DVR Configuration

2-1. SYSTEM

Under SYSTEM menu, System configuration options for general Information, Date &Time, User, ~~Password~~Quick Setup~~,~~ and ~~Storage,~~ System Log ~~and Back Up~~ can be selected.

2-1-1. MENU > SYSTEM > Information


SYSTEM : Information
DVR Name :
MAC Address : 00:06:F4:0B:8A:24
Version : 1.0.0
Upgrade
Remote Control ID : 0
Video Type : AUTO
Configuration : Export Import Default
O K
Cancel
MENU
0%
2009-05-13 02:08:43 PM
DVR Name
1 2 3 4 5 6 7 8 9 0 - = \
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z
Del Space
O K
Cancel

In the Information screen, DVR Name, System Version, Upgrade, Mac Address and Configuration options can be selected. Highlight and press DVR Name ↵ to enter or change DVR name. Name the DVR by using the virtual keyboard.

To Upgrade the system, save the upgrade file to USB Flash Memory and connect it to DVR. Once the Device is connected, press Upgrade button to execute system upgrade.
Upgrade will take approximately 5 minutes. DVR will reboot automatically when the upgrade is completed.

Note: DO NOT remove USB Flash Memory or turn off the system during the upgrade. Removing USB Flash Memory or Turning off the system during the upgrade may cause system malfunctioning.

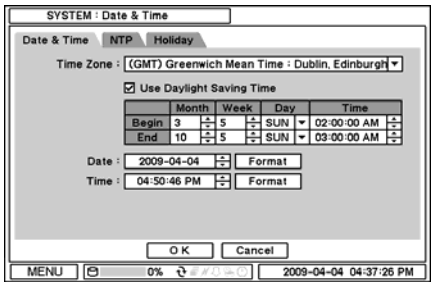
Remote Control ID
Enter Remote Control ID to control multiple DVRs individually. If Remote Control ID remains as 0, Remote ID does not have to be selected when using remote controller. It will work as general ID for any remote controls and a remote control will communicate with any DVRs with ID 0.

Video Type
The system automatically detects camera signal types as NTSC/PAL. But the system also offers manual selection options for different signal types.

Configuration
System settings can be saved and loaded using Configuration option
Export: Save settings to USB Flash Memory
Import: Load saved settings from USB Flash Memory
Default: Load factory default settings

Note: Configuration Import does not affect or changes system and network settings.
Network settings will also not be changed when selecting Default option.

2-1-2. MENU > SYSTEM > Date & Time

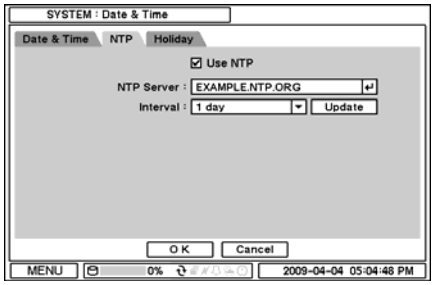


In the Date & Time, Time Zone, Date, Time, NTP Server, Holiday options can be selected.

Highlight and press Time Zone ▼ to select right Time Zone.

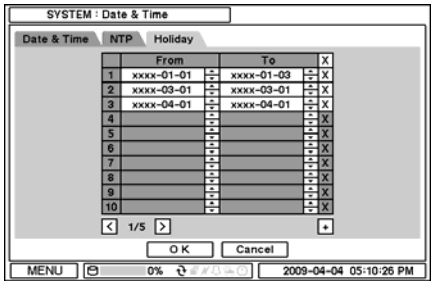
Select 'Use Daylight Saving Time' if it is applicable. Enter start and end date/time for local 'Daylight Saving Time'.

Press ▲▼ button to set up Date and Time. Press Format button to select a date & time display format.



Select 'Use NTP' to enter Time Servers to be synchronized with DVR. Highlight and press ↵ to enter Time Server using the virtual keyboard. Press 'Update' to synchronize the DVR time with the registered time server.

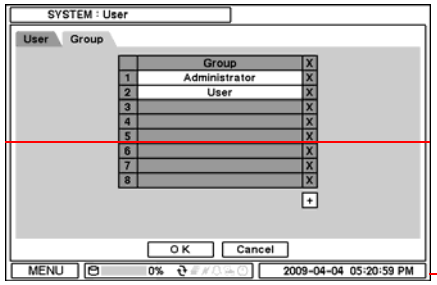
Note: NTP is not essential for DVR operation. Any type of Standard Time Server can be used (e.g. time.windows.com). Time Synch might not be completed due to heavy traffic or delays from the Time Synch server.

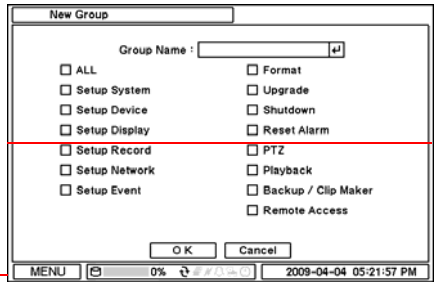


Press Holiday to set specific dates for Holiday setup. Set specific date by pressing + button. Change and delete dates using ▲▼ and X buttons.

Note: There are some Holidays fall on different days. Therefore, they have to be updated every year.

2-1-3. MENU > SYSTEM > User





~~Set user registration and access rights for the system. Press Group tap to add and set group. Press + to add a new group. Enter a group name and select access rights for a group. To remove an existing Group, press X next to it.~~

Press User Tab to enter/add a new user.

Auto Login: It allows a user to log in right after the system boots up automatically. As a system allows auto log in without the authentication process please make sure DVR has a limited access by non authorized personnel.

Auto Logout: Turn On or Off Auto Logout option.

Press [+] to add a new user. To remove an existing user, press [X] next to it.

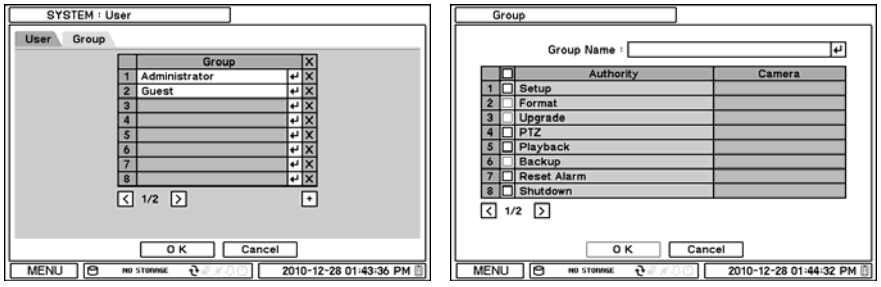
User Name: Enter a user name

Group: Select a Group which a new user will belong to

Password: Set a new password or change a password.

Note: Default password is "1111"

Note: Do not use "admin" as an user name since it may cause a fatal error.



Set user registration and access rights for the system. Press Group tap to add and set group. Press [+] to add a new group. Enter a group name and select access rights for a group. To remove an existing Group, press [X] next to it.

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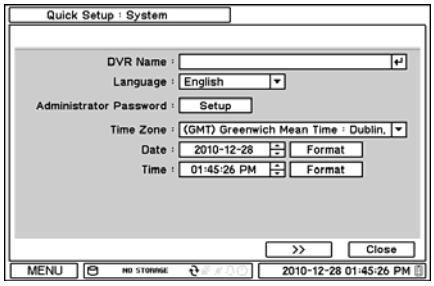
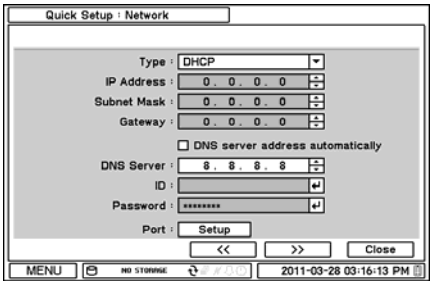
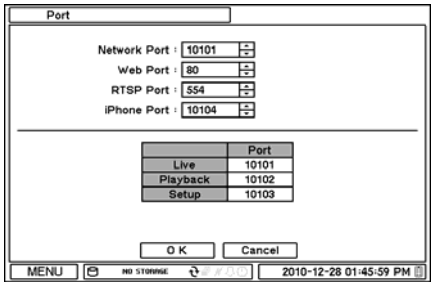
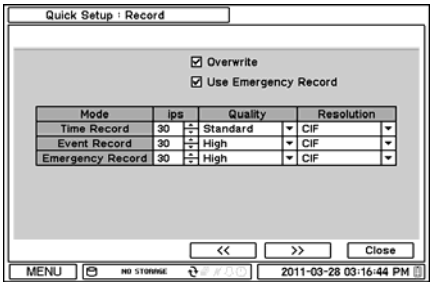
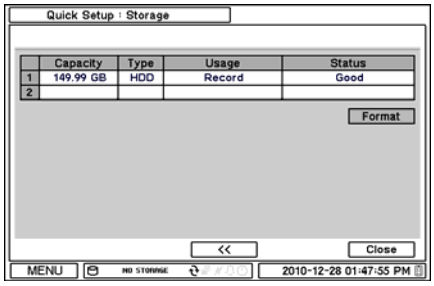
2-1-4. MENU > SYSTEM > Quick Setup




Quick Setup : Network
Type : DHCP
IP Address : 0 . 0 . 0 . 0
Subnet Mask : 0 . 0 . 0 . 0
Gateway : 0 . 0 . 0 . 0
DNS server address automatically
DNS Server : 8 . 8 . 8 . 8
ID :
Password : ********
Port : Setup
<<
>>
Close
MENU
NO STORAGE
2011-03-28 03:16:13 PM

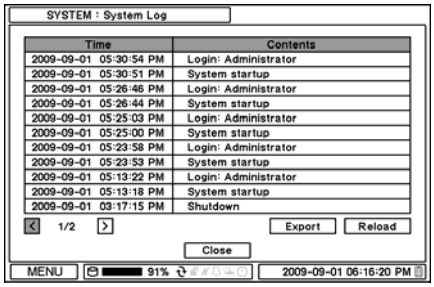






Quick Setup Menu allows easy and basic setup for main menu settings.

2-1-45. MENU > SYSTEM > System Log



In the System Log, full list of system logs can be searched.

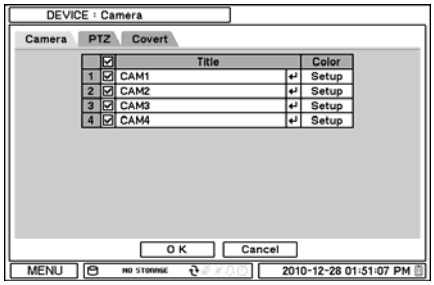
Press Reload button to refresh log list. USE < > button to search log list page by page.

Log list can be export in txt format.

2-2. DEVICE

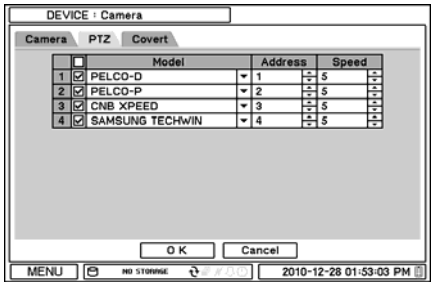
Under Device menu, Device configuration options for Camera, Audio, ~~PTZ,~~ Alarm ~~& Buzzer~~, Keyboard and RS232 & RS485 (POS/~~Keyboard~~PTZ/Keyboard) can be selected.

2-2-1. MENU > DEVICE > Camera



Set Camera display option. Camera display (video loss display) can be disabled by unmarking the box next to it if there is no camera connected. Press ↵ to change Camera title.

Press Setup button under Color to adjust video color. Click or drag a control box to adjust each color level.



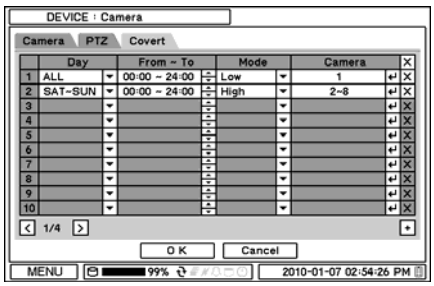
PTZ Control

Select channel connected with PTZ camera. Select PTZ from the contextual menu appears by pressing right mouse button.

Note: PTZ can only be controlled in single screen mode.

Use icons on screen to control PTZ. By using a mouse, click arrows to move around PTZ and click icons for each functions of PTZ camera.

	Zoom Out
	Zoom In
	Focus on near distance
	Focus on far distance
	Save Presets
	Load Presets



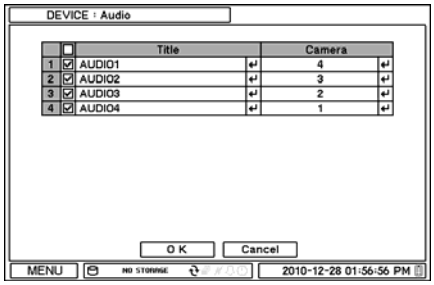
Covert Setting

Covert setting allows the privacy on monitoring. If Covert is set, live image will not be displayed. Covert can be scheduled by day, time and mode by cameras.

Covert Low Mode: No display of video image on screen but OSD still remains on screen.
Covert High Mode: Neither of video image or OSD will be displayed on screen.

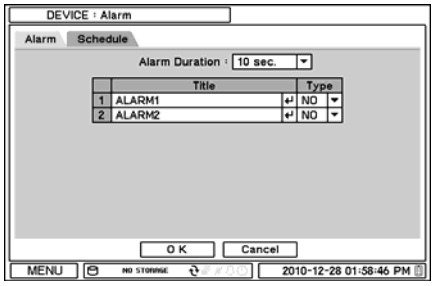
Note: Any Covert options will not affect recording data as it only changes monitoring conditions.

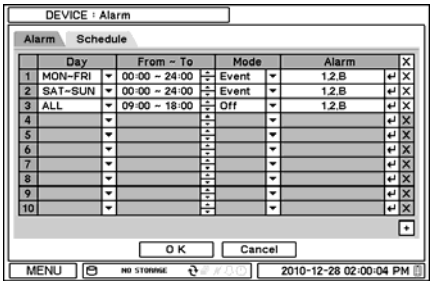
2-2-2. MENU > DEVICE > Audio



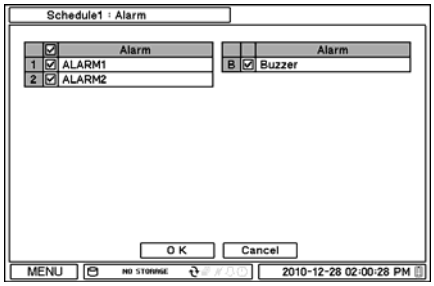
Select Audio for Audio recording. Each Camera and Audio can be linked regardless of its channel numbers.

2-2-3. MENU > DEVICE > Alarm



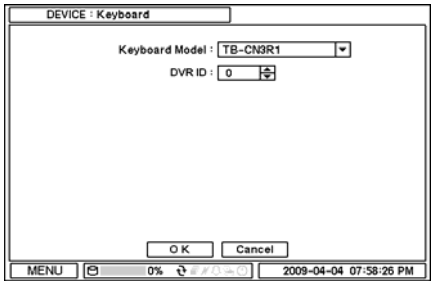


Alarm duration: Set Alarm activation time from 5 seconds to 10 minutes.
Select Schedule tap to schedule Alarm operation. Alarm can be set by day, time, mode and inputs (camera).



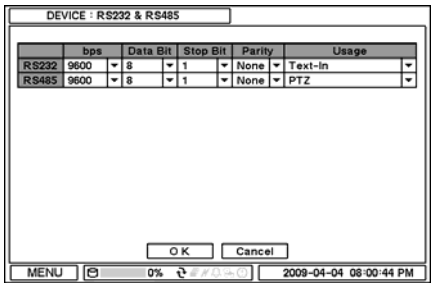
Press ↵ to choose Alarms and set Buzzer with Alarm activation.

2-2-4. MENU > DEVICE > Keyboard



Press ▼ to find and select keyboard from the list.

2-2-5. MENU > DEVICE > RS232 & RS485



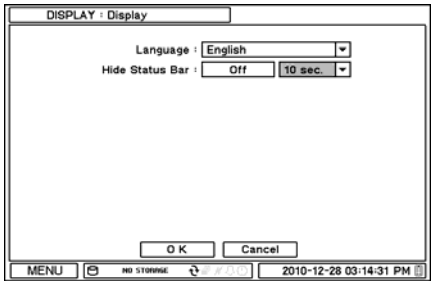
Press ▼ to select a device for each ports.
RS232: Supports Text In (POS) device. PTZ and Keyboard
RS485: Supports Text In (POS) device ,PTZ and Keyboard.

Note: Text In devices (e.g. Cash Register) needs to use ASCII code for Text In info on DVR

2-3. DISPLAY

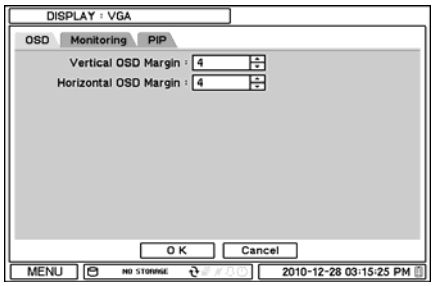
Under Display menu, Display configuration options for OSD and Monitor can be selected.

2-3-1. MENU > DISPLAY > Display

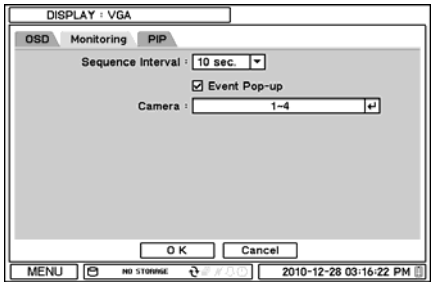


Language: Select system language. Press ▼ to find available language options.
Hide Status Bar: Select On/Off and time to hide Status Bar when system is not in use.

2-3-2. MENU > DISPLAY > VGA

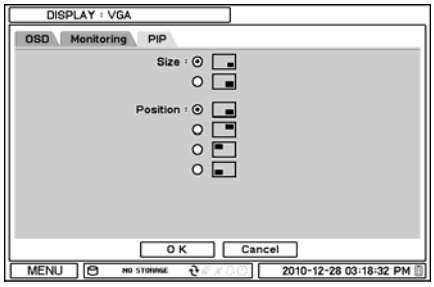


OSD margin: Set OSD margin (position) using ▲▼.



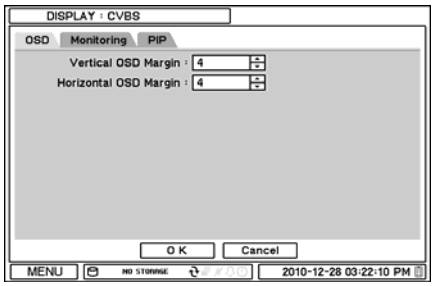
Sequence Interval: Set time interval between cameras under sequence mode.

Event Pop-up: Pops up the camera image in full screen when pre-set event occurs.

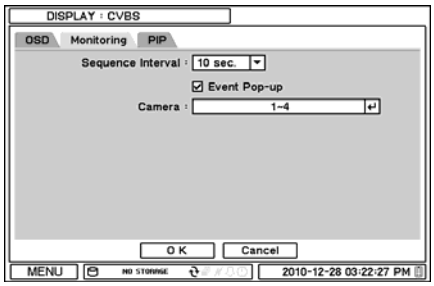


PIP (Picture In Picture) size and its display positions can be selected under PIP menu. Please select desired size and positions of PIP display.

2-3-3. MENU > DISPLAY > CVBS

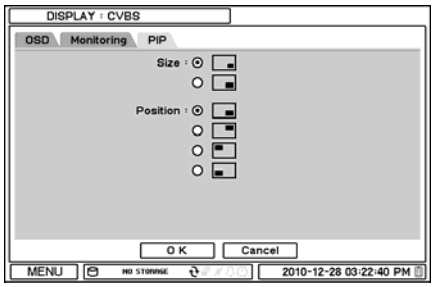


OSD margin: Set OSD margin (position) using ⊞.



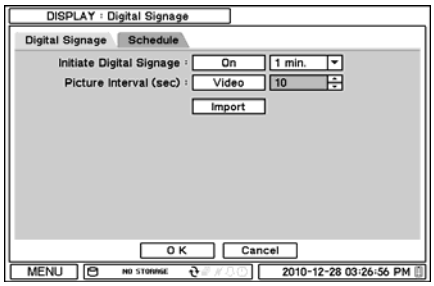
Sequence Interval: Set time interval between cameras under sequence mode.

Event Pop-up: Pops up the camera image in full screen when pre-set event occurs.



PIP (Picture In Picture) size and its display positions can be selected under PIP menu. Please select desired size and positions of PIP display.

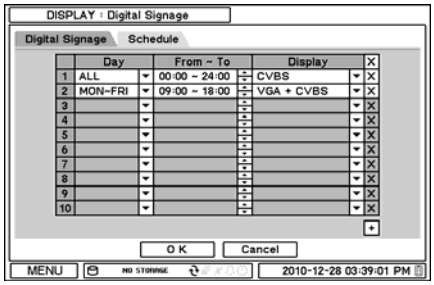
2-3-4. MENU > DISPLAY > Digital Signage



Initiate Digital Signage: Set Initial Digital Signage as On to display imported Digital Signage Data. Set a time next to it to initiate Digital Signage after system is not in use for the time set.

Picture Interval (sec): Select the type of data to be displayed under Digital Signage mode. Select either Video or Image data format. Select the interval time for image data.

Import: Retrieve prepared Digital Signage data on USB Memory. Please refer to Appendix C. for how to prepare video digital signage.

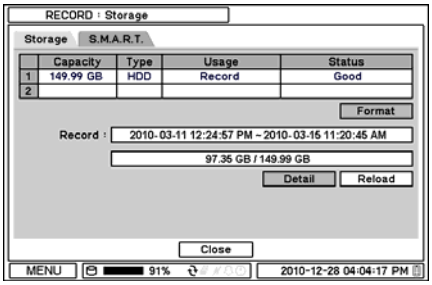


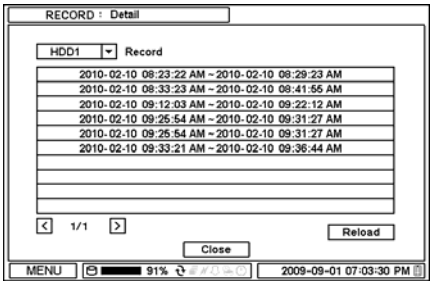
Schedule: Schedule Digital Signage by time and date.

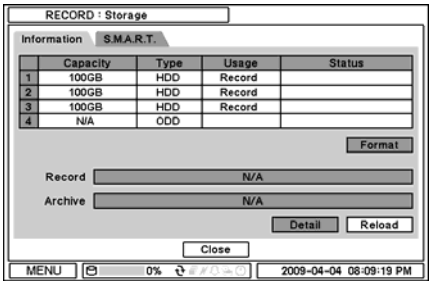
2-4. RECORD

Under Record menu, Record configuration options for Storage, Record~~, Archive,~~ and Record Tools can be selected.

2-4-1. MENU > RECORD > Storage

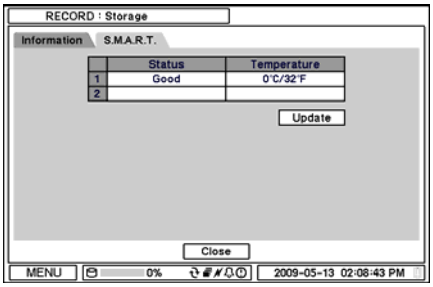






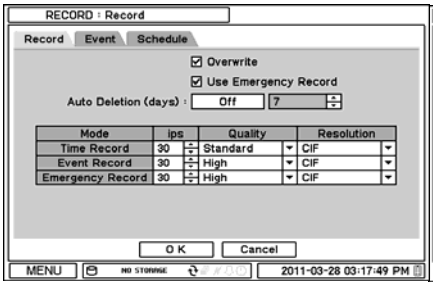
In Storage, it displays the installed/connected storage status such as Capacity, Type, Usage and Status.

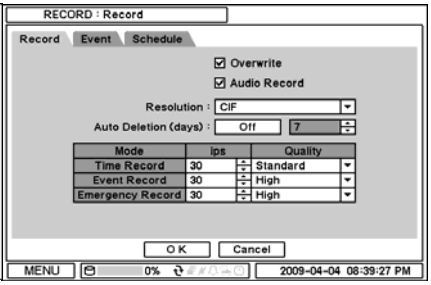
Format: Press Format to format selected HDD.
Record: Displays the recording period and data stored on HDD.
Detail: Displays the detail information of data stored on HDD
~~**Archive**: Displays the Archiving period and data stored on HDD.~~



In S.M.A.R.T, HDD status are being displayed including its temeprature. Click Update to get the latest status.

2-4-2. MENU > RECORD > Record





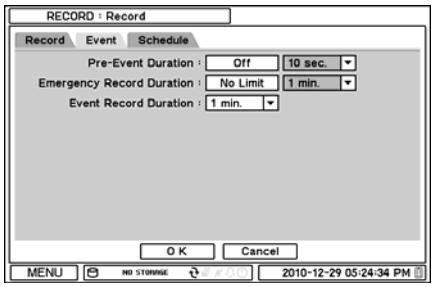
In Record, general recording options can be selected including overwrite, resolution, speed, recording quality and etc.

Overwrite: Select Overwrite to overwrite recorded HDD data when it is full.

Auto Deletion(days): Turn on Auto Deletion to delete any data older than the defined days automatically.
Resolution: Select recording resolution.

Time Record: Set ips/quality for continuous recording
Event Record: Set ips/quality for event recording
Emergency Record: Set ips/quality for emergency recording mode.

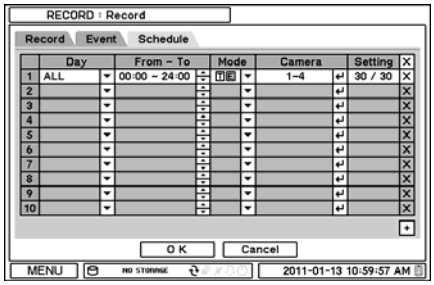
Note: The ips needs to be set higher than 1ips for Audio recording at D1 or Half D1 recording option, otherwise there would be a time delay between recorded Audio and Video sync.

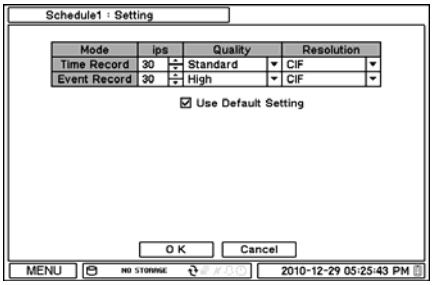


In Event, pre and post recording options for Event can be set.

Pre-Event Duration: Video Images occurred right before an Event can be recorded by setting Pre-Event under Event Mode. Duration Pre-Event recording can be set using Pre-Event(sec) upto ~~60~~ 30 seconds.

Emergency Record Duration: Time duration can be set for Emergency recording from 5 seconds to 30 minute or continuously by selecting No Limit option.
Event Record Duration: Set recording duration for events up to 30 minutes.

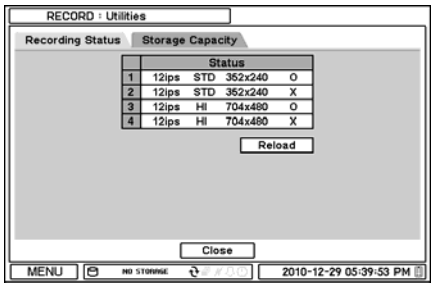




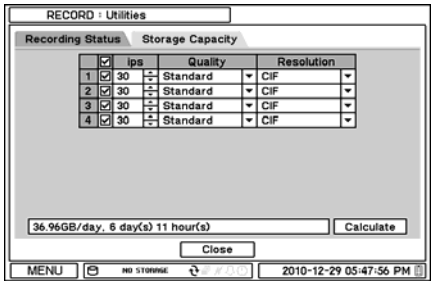
In Schedule, fully detailed and specified recording schedules can be set by day, time, modes, cameras and recording options.

Press [+] to add a new schedule. To remove an existing schedule, press [X] next to it. Press Setting to set recording options.
Use Default Setting: Check Use Default Setting to follow main recording setting under Record menu.

2-4-3. MENU > RECORD > Utilities



In Recording Status, current recording options and status are displayed. The list will show Recording Frames, Video Quality, Resolution and Audio recording (o/x) in order.



In Storage Capacity, estimated HDD usage and recording period can be calculated. Press Calculate once resolutions, ips, number of cameras and quality are set. The recording period is calculated based the size of HDD installed.

–The GB size shows the HDD size requires for a day recording. Day and Hours shows the period can be recorded based on the installed HDD size.

NoteOTE: The calculation results show approximate data only. Same frame rate and video quality does not guarantee same storage size and recording duration. This is due to the variety of conditions on images such as more/less colors or more/less movements. This situational variance will affect the file sizes more at lower frame rate settings.

NoteOTE: Changes Ips manually. It does not change Ips according to the change of resolution.

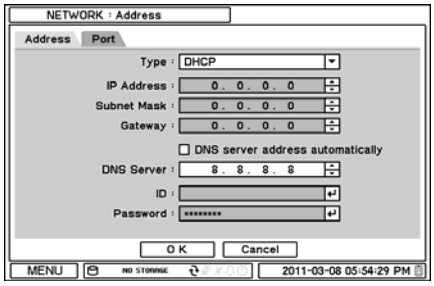
Note: approximate size for each resolution – CIF: 360X240, Half D1: 720x240, D1: 720x480

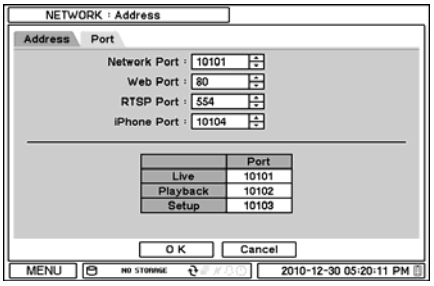
Formatada: □□: @Note

2-5. NETWORK

Under Network menu, Network configuration options for network Address, DDNS, Remote Notification and Transmission can be set up.

2-5-1. MENU > NETWORK > Address


NETWORK : Address
Address
Port
Type : DHCP
IP Address : 0 . 0 . 0 . 0
Subnet Mask : 0 . 0 . 0 . 0
Gateway : 0 . 0 . 0 . 0
DNS server address automatically
DNS Server : 8 . 8 . 8 . 8
ID :
Password : ********
O K
Cancel
MENU
2011-03-08 05:54:29 PM



In Address, Information such as Type, IP address, Subnet Mask, Gateway Port and DNS can be set for network connections.

Type: Select the type of network configuration from: Static IP, DHCP and ADSL(with PPPoE).

IP Address: Enter IP address using ÷ button.

Subnet Mask: Enter Subnet Mask using ÷ button.

Gateway: Enter Gateway using ÷ button.

DNS: Set up the IP address of the DNS server. If you set up the DNS Server, the domain name of the DVRNS server instead of the IP address can be used during the DVRNS Server setup.

DNS sever address automatically: Select this option to get DNS Server Address automatically when use DHCP or PPPoE option.

In Port, Select appropriate port number for external access to the system. The port list shows necessary ports to be opened for each operation.

Network Port: Set port for DVR Remote Client.

Web Port: Set port for Web Remote Client.

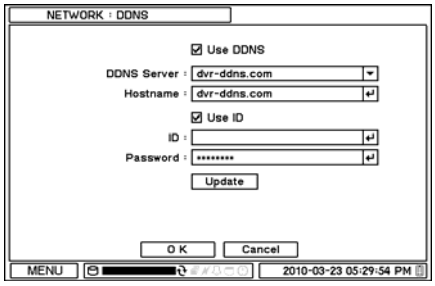
RTSP Port: Set port for Android based devices.

iPhone Port: Set port for iPhone.

Note: ID and Password are required in ADSL(with PPPoE) type.

Note: Default TCP port is 10101 but it can be set from 1500 to 32000 if it is necessary.

2-5-2. MENU > NETWORK > DDNS



In the DDNS, network options for DDNS can be selected.

DDNS: Dynamic Domain Name Server allows dynamic network connections.

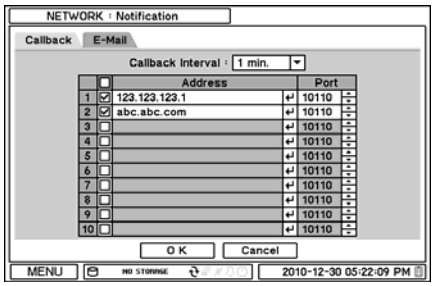
Note: “dvr-ddns.com” and “www.dyndns.org” offer free registrations for DDNS service. Please refer to the appendix for DDNS set up page.

Host Name: Name the DVR or site where it is located using the virtual keyboard by pressing ↵.

ID/Password: ID and Password are required for Authentication.

Note: Use ID/Password registered in DDNS.

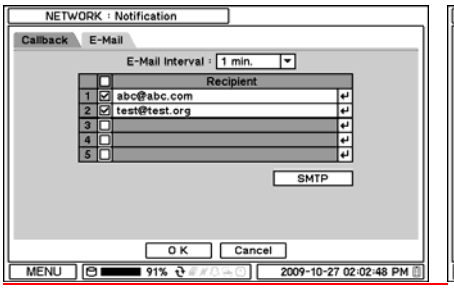
2-5-3. MENU > NETWORK > Notification

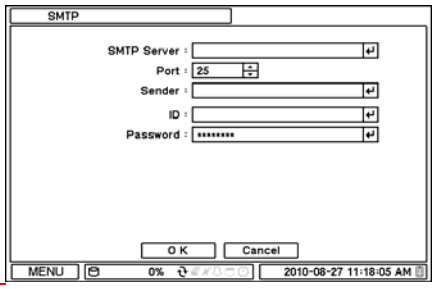


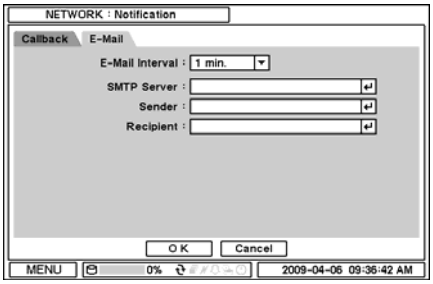
In Callback, set up IP addresses of client sites so that Events detected in local system can be notified to multi remote client sites simultaneously. Enter IP addresses of client sites to receive events notifications on remote sites. Press ↵ to pop up the virtual keyboard.

Callback Interval: Select Callback Interval to set time interval between consequential events being sent to remote site.

Note: Any events occur between the pre-set interval time will not be sent to remote site. e.g. If the interval is set as 30 seconds, only the events occur every 30 seconds since the first event will be sent to remote site.







In Email, Events can be notified to personal email addresses by text message.

E-Mail Interval: Select E-Mail Interval to set time interval between consequential events being sent to remote site via email.

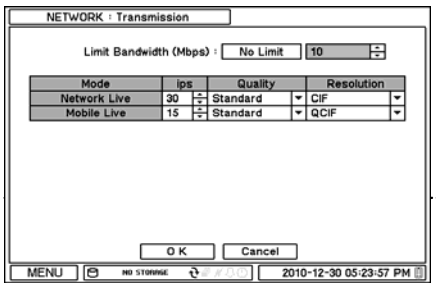
Recipient: Enter the email address of a recipient. Up to 5 recipients can be entered.

Note: Any events occur between the pre-set interval time will not be sent to remote site. e.g. If the interval is set as 30 seconds, only the events occur every 30 seconds since the first event will be sent to remote site via email.

SMTP Server: Enter SMTP server using the virtual keyboard. SMTP server information can be obtained from a system administrator.

Sender: Enter the address/name where the email is being sent from.

2-5-4. MENU > NETWORK > Transmission

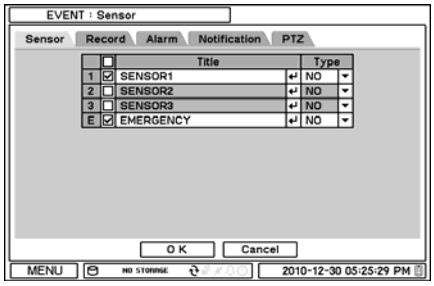


In Transmission, Network transmission can be controlled with ips and bandwidth.

2-6. EVENT

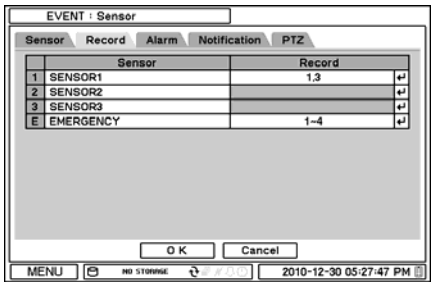
Under Event menu, events can be set in synchronization with Sensor, Motion, Video Loss, Text-In, System,~~cameras, alarm and remote notifications.~~

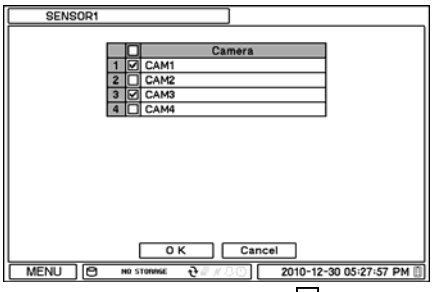
2-6-1. MENU > EVENT > Sensor



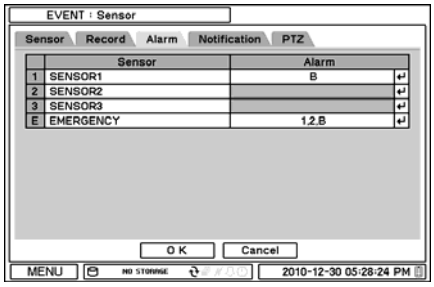
In Sensor, each sensor can be selected for activation and its type. Select Sensor Type using ▼ button.
NC: Normally Closed
NO: Normally Opened

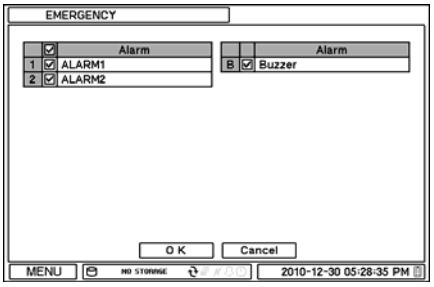
4th Sensor is designed for Emergency recording only. It will follow Emergency recording setting when it is triggered.



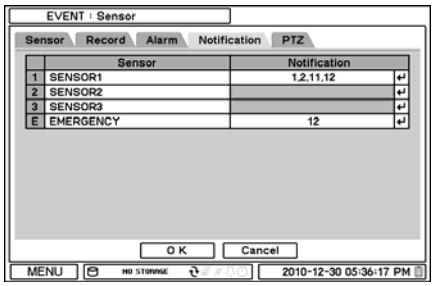


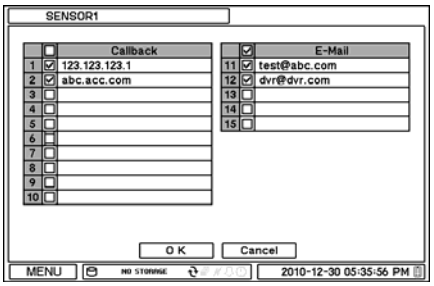
In Record, each sensor can be synchronized with single and multi cameras. Press ↵ to select cameras to be synchronized with sensors.



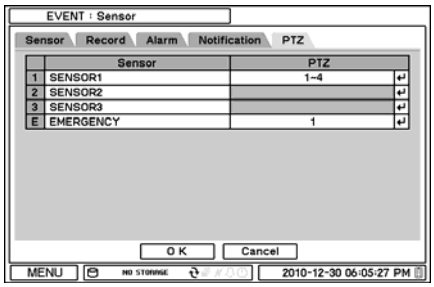


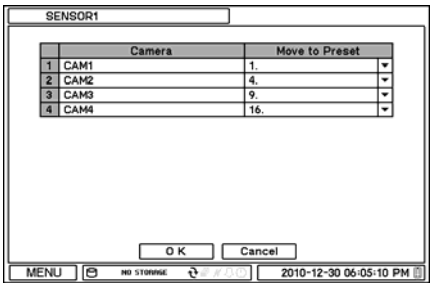
In Alarm, each sensor can be synchronized with single and multi alarms. Press ↵ to select alarms to be synchronized with sensors.





In Notification, each sensor can be synchronized with single and multi callback or emailing sites. Press ↵ to enter callback or email address to be synchronized with sensors.

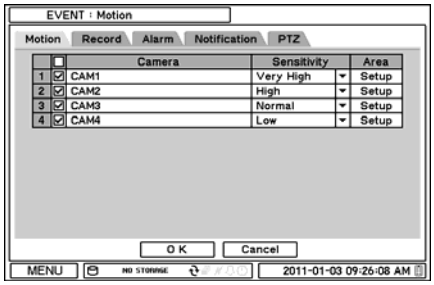


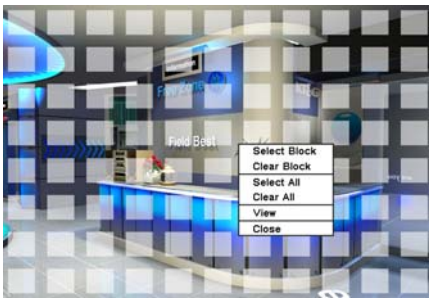


PTZ can be sync with Event using its preset function. If Event occurs, PTZ moves to the position where event and positions are pre set. The above menu shows, Sensor 1 is set to sync to cameras 1,2,3 and 4. If you click PTZ section, PTZ preset (position) can be set for cameras in the event of Sensor activation.

PTZ event related preset can be synch only with Sensor/Motion/Video Loss events. If there are multi events occur to a camera at same time, it takes events in order of Sensor > Motion > Video Loss.

2-6-2. MENU > EVENT > Motion





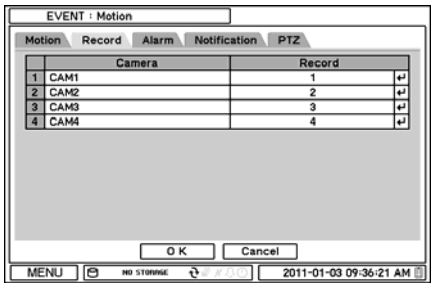
In Motion, system provides Motion Detection function. Set Motion Detection using Sensitivity, View and Area options.

Sensitivity: Select motion sensitivity from Very Low to Very High.
Area: Define the area for motion detection.

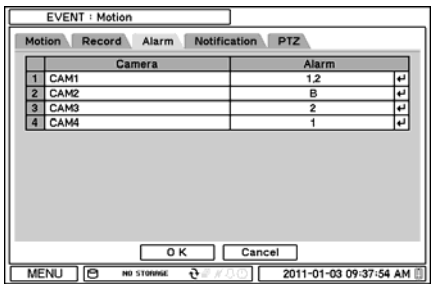
Press Setup under Area to define motions detection areas. The blocks indicate the area where is defined for motion detection

Select Block: Use arrow keys to move around a box. Select individual blocks to set motion

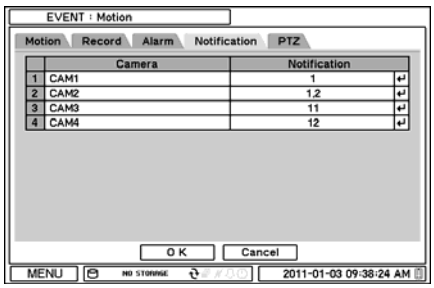
zones. Use number keys to select and unselect blocks (When using a mouse, use a left button).
Clear Block: Unselect all blocks inside a box
Select All: Select blocks on entire screen.
Clear All: Unselect blocks on entire screen.
View: View the appearance of motion zones on screen when motions is detected.



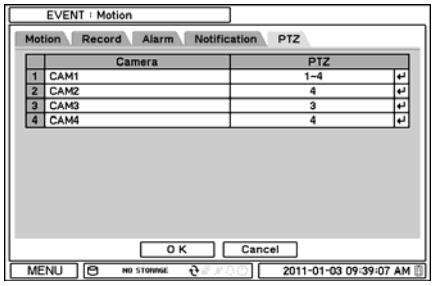
In Record, each camera can be synchronized with single and multi motion detections from other cameras. Press ↵ to select cameras to be synchronized with motions detections.



In Alarm, each camera with motion can be synchronized with single and multi alarms. Press ↵ to select alarms to be synchronized with cameras for motion events.

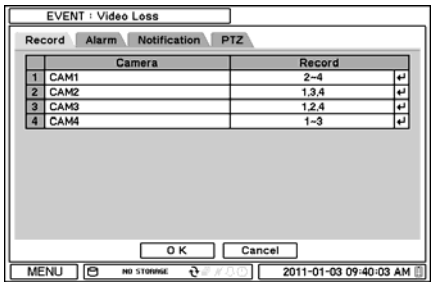


In Notification, each camera with motion can be synchronized with single and multi callback or emailing sites. Press ↵ to enter callback or email address to be synchronized with cameras for motion events.

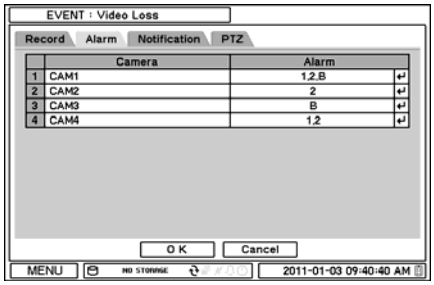


PTZ can be sync with Motion event using its preset function. If Motion is detected, PTZ moves to the position where event and positions are pre set.

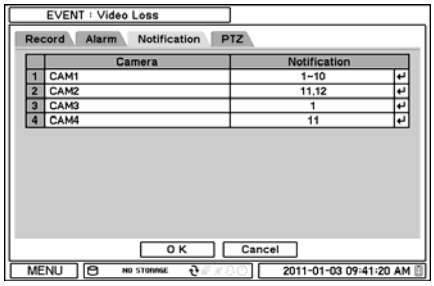
2-6-3. MENU > EVENT > Video Loss



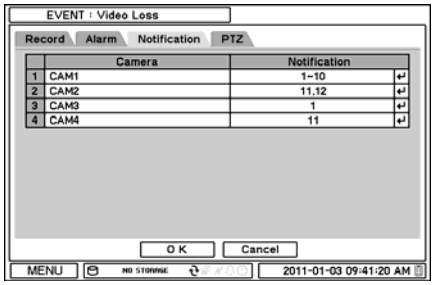
In Video Loss, single or multi cameras can be synchronized for event recording when there is a video loss. Press ↵ to select single or multi cameras to be synchronized with cameras for video loss.



In Alarm, each camera with video loss can be synchronized with single and multi alarms. Press ↵ to select alarms to be synchronized with cameras for video loss.

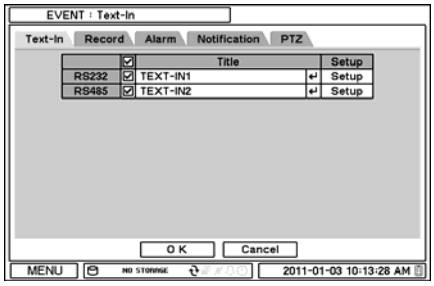


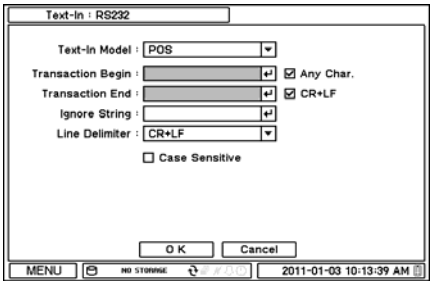
In Notification, each camera with video loss can be synchronized with single and multi callback or emailing sites. Press ↵ to enter callback or email address to be synchronized with cameras for video loss.

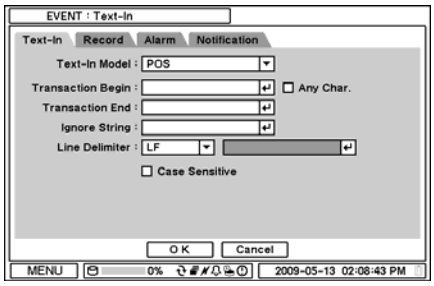


PTZ can be sync with Video Loss event using its preset function. If Video Loss occurs, PTZ moves to the position where event and positions are pre set.

2-6-4. MENU > EVENT > Text-In







The system allows Text In from POS/ATM machines.

Note: For use of POS/ATM, the system must support general ASCII code.

Text-In Model: Select Text-In model from the list

Transaction Begin: Enter a word which the transaction info to be displayed on screen as a start.

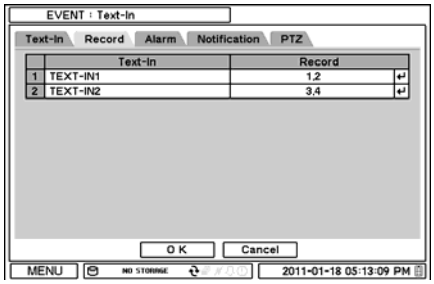
Any Character: Check Any Character to start display a text with any character as a start.

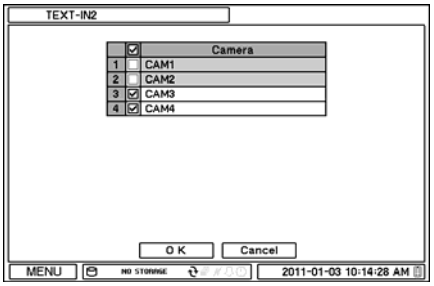
Transaction End: Enter a word of last line where the transaction info to be displayed on screen as the end. If you want additional lines to be displayed after the transaction end, select more line options.

Ignore String: Enter a word to ignore strings includes selected word.

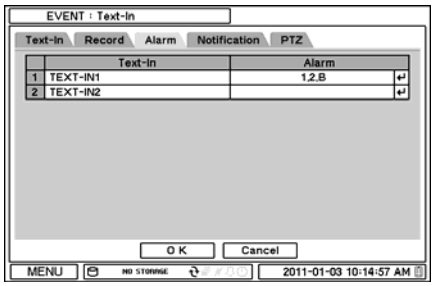
Line Delimiter: Enter a symbol or a word to distinguish the end of lines.

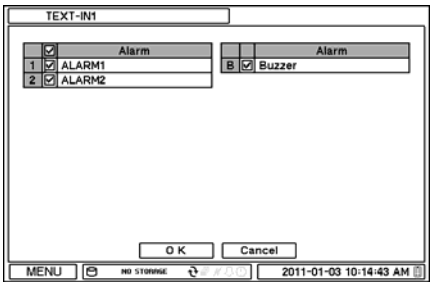
Case Sensitive: Select Case Sensitive option if distinguish a word with case sensitivity.



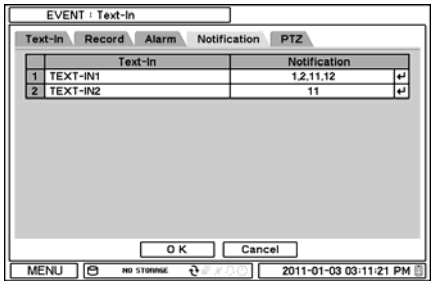


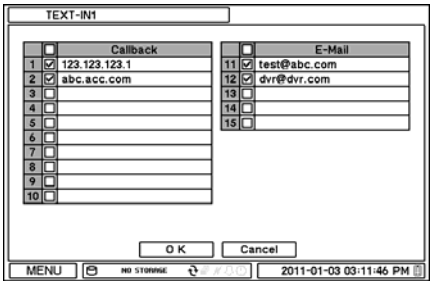
In Record, text event can be synchronized with single or multi camera record. Press ↵ to select camera(s) to be synchronized with text event. If RS232/RS485 Port are being used at the same time, it has to be used for different cameras. For example, if RS232 is set for cameras 1~12, RS485 should be set with 13~16. They can't share same cameras.



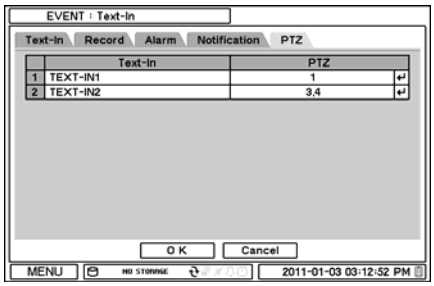


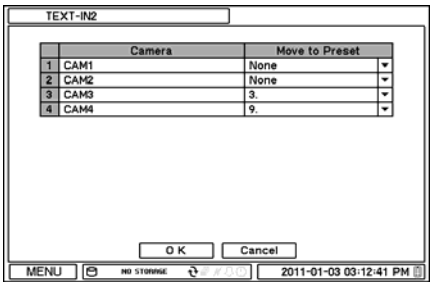
In Alarm, text event can be synchronized with single or multi alarms. Press ↵ to select alarms to be synchronized with text event. If B is selected, system will buzz on alarm detections.





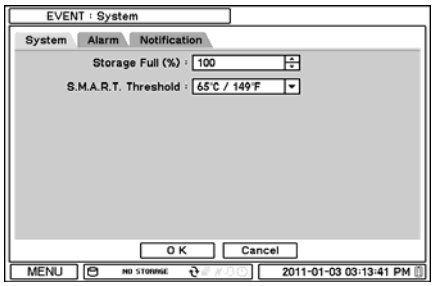
In Notification, text event can be synchronized with single and multi callback or emailing sites. Press ↵ to enter callback or email address to be synchronized with text event.





In Text In, each text input can be synchronized with single and multi cameras. Press ↵ to select cameras to be synchronized with text inputs.

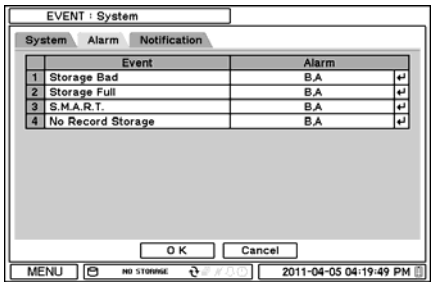
2-6-5. MENU > EVENT > System

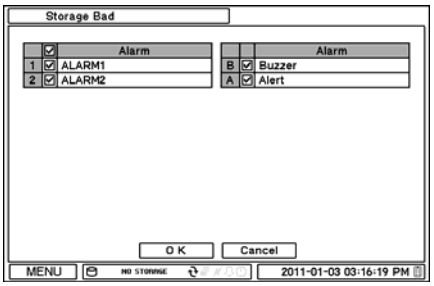


In System, S.M.A.R.T function monitors storage conditions such as Temperature, Conditions and Recording.

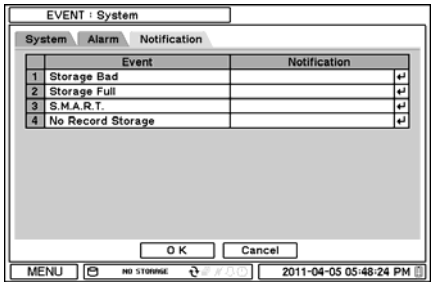
Storage Full option can be set to notify a message for the indication of HDD storage usage level. Warning message can be notified in various ways as described below.

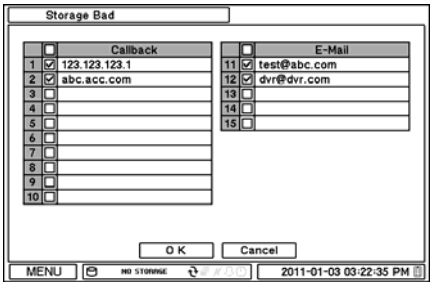
S.M.A.R.T Threshold allows to pre set tolerable temperature level of storage. If HDD temperature increases over pre set temperature, it will notify a user in various ways according to following settings.





In Alarm, each system event can be synchronized with single and multi alarms. Press ↵ to select alarms to be synchronized with each event. If Alert is selected, system will pop up a warning message on screen.

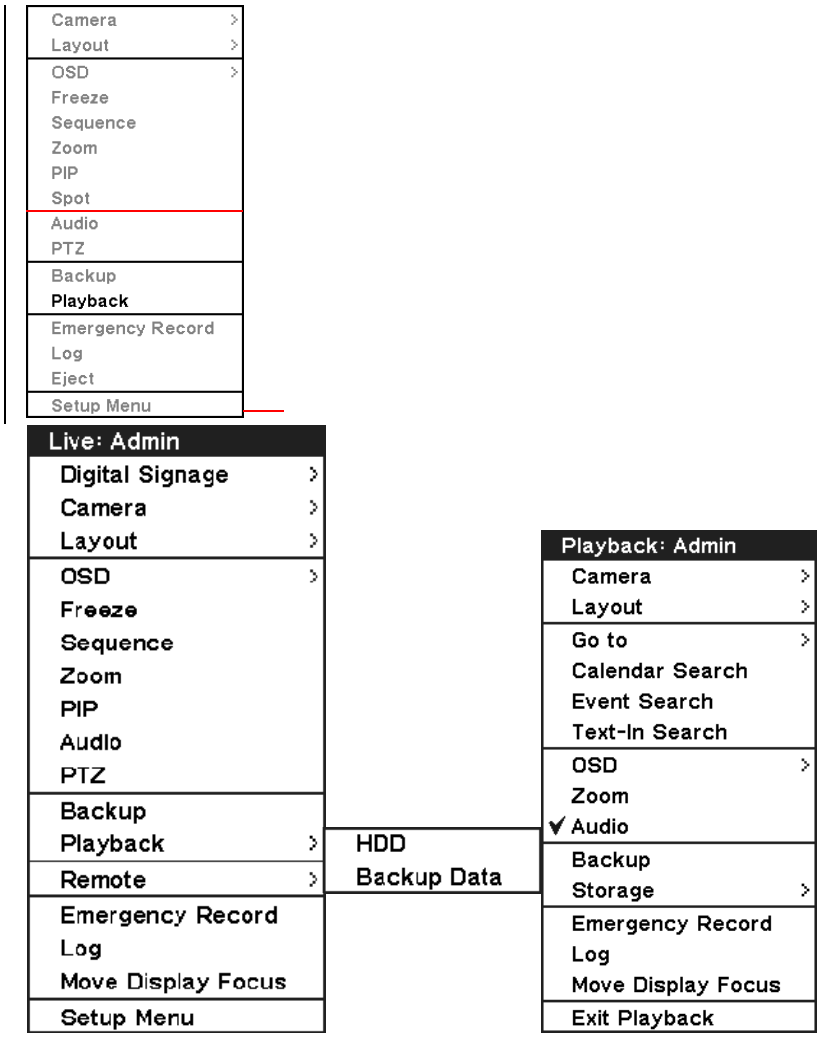




In Notification, each system events can be synchronized with single and multi callback or emailing sites. Press ↵ to enter callback or email address to be synchronized with system events.

3. Playback

The system provides various playback menu to search recorded data. Please click right Mouse button on Search Mode and select the storage type. If backup data is selected, the data on external HDD can be searched.



Camera : Select camera no.
Layout : Select display mode (8/16 ch. DVR Only)
Go to : Search recorded data by time/date. Move to the beginning or end of recorded data. Also search data by 5/10/15/30/60 seconds backward from the current time of search.
Search : Select Calendar Search, Event Search and Text In Search

OSD : Select OSD display option
Text-In Info.: Select Text display option for POS or ATM machines. ~~Text-In OSD를 켜거나 끌 수 있음~~
Zoom : Zoom in image by X2
Audio : Select Audio outs

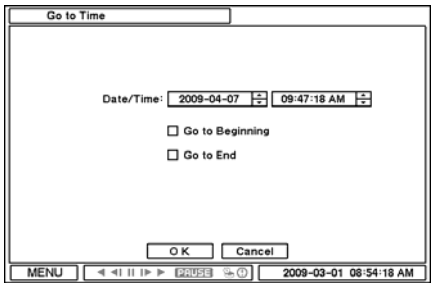
Formatada: □□ : @Bold

Backup : Select backup or Clip Copy option
Storage : Select HDD or Backup Data to playback

Emergency Record : Start Emergency Recording
Log : Select System/Event log
Move Display Focus: Choose “Move Display Focus” to move focus to another monitor.

Exit Playback: Exit Search Mode and return to Live Mode

3-1. Go to Time

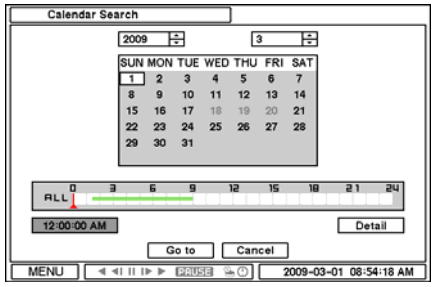


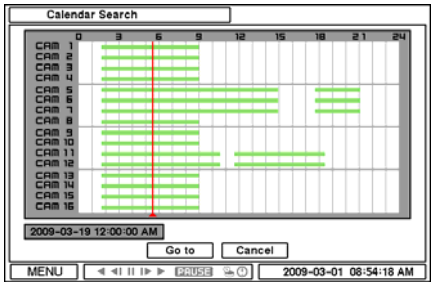
Select Go to Time to search recorded data by time/date. Set time/date using ÷ button. Go to Beginning and End options are selectable to search the very first and last data recorded. Once desired settings are completed, press OK to begin playback.

Go to Beginning : Move to the very first recorded data.

Go to End : Move to the latest recorded data.

3-2. Calendar Search

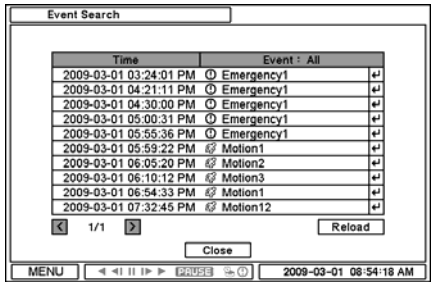


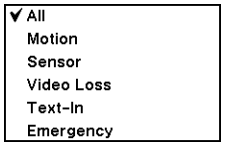


Calendar Search provides easy graphical search by displaying numbers (dates). Dates with recorded data will be highlighted. Once you select the date, it will display record time table below. The numbers on the top of the table shows the time frame in 24hours format, and titles on the left indicate cameras numbers. The color bar shows the full information of recorded data on the selected date. Move the indicator (line) to select specific recorded time of the selected date. For a detail display of recorded data please press Detail.

Once desired settings are completed, press Go To to begin playback.

3-3. Event Search





Event Search provides easy search by event list recorded. Select the date and type of event to find specific data. Press Event: All section on the tope of the list to display event search options.

All: System displays every event

Motion: System displays every events related to Motion

Sensor: System displays every events related to Sensor

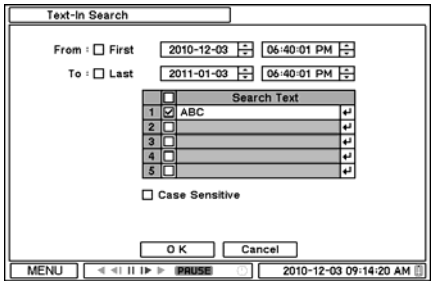
Video Loss: System displays every events related to Video Loss

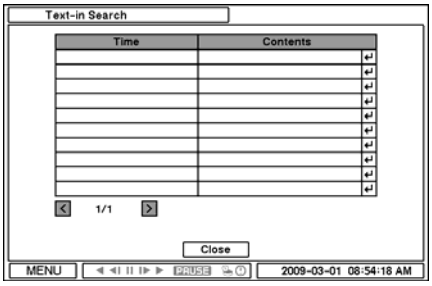
Text-In: System displays every events related to Text In

Emergency: System displays every events related to Emergency Recording

Once find specific list of event, move up and down button to highlight the log and press it to playback the event data.

3-4. Text-In Search





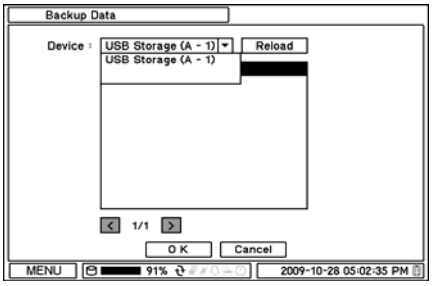
Text In Search provides easy search by transactions. Search for Time and Transaction information. Press Search for detail information.

From: Set beginning time to start search or select First for search from the first data.
To: Set end time to end search or select Last for search to the last data.
Search Text: Enter any words to search text data include the words.

Once entering all the search information, press OK to start Text In search.

Formatada: Cabeçalho 3;□□□ 1-1;1-2

3-5. Backup Data Playback



Backup files on backup medias can be played on DVR. Insert the media with backup files and select a file to playback it on DVR.

3-~~5~~6. Playback Control

R.Play(◀): Reverse Playback

Step Backward(◀|): Go to the previous image

Pause(||): Freeze or Stop current image

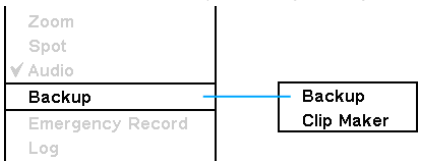
Step Forward(|▶): Go to the next image

Play(▶): Play the data at normal speed

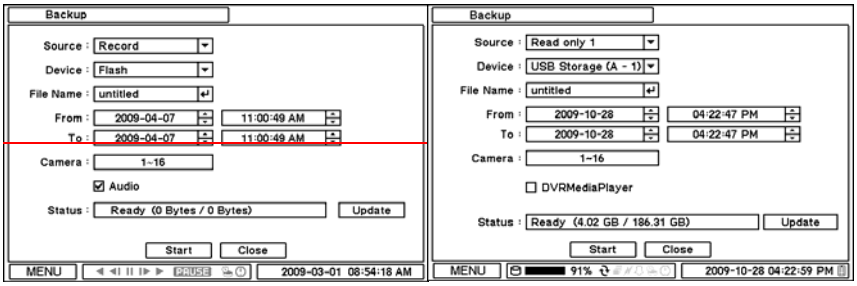
To control the backward and forward playback speed, press on ◂ or ▸ repeatedly. Playback speed can increase up to x32.

4. Backup

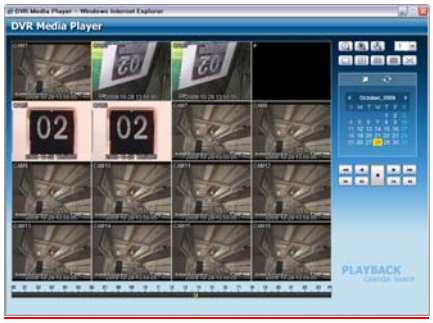
Recorded data can be backed up on USB Flash memory. Select backup or Clip Copy option during Search or Live mode by selecting Backup.



4-1. Backup



In the BACKUP, the recorded data can be selected for backup to USB devices.
Press USB Device to select the type of USB Device connected to the system.
Select date & time period of data to be backup using button.
Select Camera number to be backup or All to backup all the data recorded during the selected period. To back up recorded Audio with video data together select Audio.
Status shows capacity of the device being prepared for backup, and it will show backup progress during backup.



The files saved (backup) in DVRMediaPlayer (.exe) format allows multi camera backup and the files would not require any specific codec for playback on PC. To open and play a file saved in DVRMediaPlayer (.exe), double click the file and it will automatically be played on Internet Explore window. This fuction is supported only on Internet Explorer 7.0 or above.
Note: The backup process could be slowdown if the system is being monitored/playback on the remote using the client program during the backup process.

Note: "DO NOT remove the back up media while the data backup is being processed. It may cause critical damage to either the media or system if the backup media is removed during the backup process."

Note: During the CD or DVD back up the ODD door could be opened and closed as a process of back up. Please do not remove CD or DVD during the back up in any cases until it is done completely.

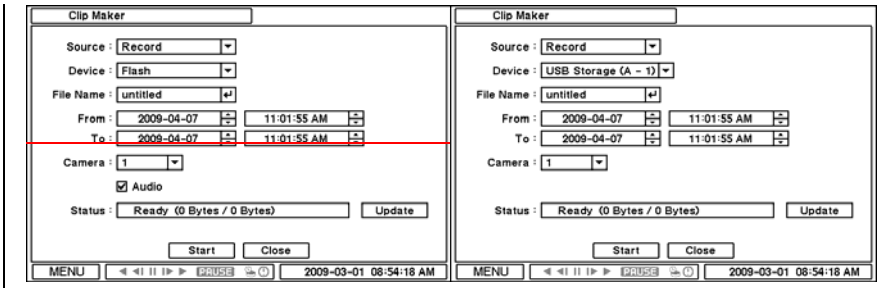
4-2. Instant Backup

Press backup button to start Instant Backup during the playback. Instant Backup window will appear when press backup button during the normal playback mode. Select Device, File Name, Audio and press Start to continue the playback and backup. The Backup Icon will appear on the screen during the Instant Playback. Press backup button one more time to stop and complete Instant Backup.

Note: "DO NOT remove the back up media while the data backup is being processed. It may cause critical damage to either the media or system if the backup media is removed during the backup process."

Note: Playback speed will be slower than usual while instant back up is processing.

4-3. Clip Maker



Clip Maker allows to create single channel backup file which can be played on PC. Select Clip Maker option on the pop up menu during the live or pause mode on the playback.

Select the backup option for Clip Maker. Press [Start] button to create Clip Maker. Use Quick Time player to play the file created using Clip Maker

Note: The Clip Maker file can not be played on other programs such as Window Media Player.

Chapter 4. Remote Software – Web Viewer

User can access to use DVR's Setup, Live Web Monitoring, Playback functions through Internet Explorer.

Note: Before using the remote software, refer to **a customer card** in the package to download the software. Please install the software on your PC once you download it.

4-1. Login

User can access to the DVR's Remote Monitoring System if user inputs DVR's IP address or its registered hostname at Internet Explorer's address bar.

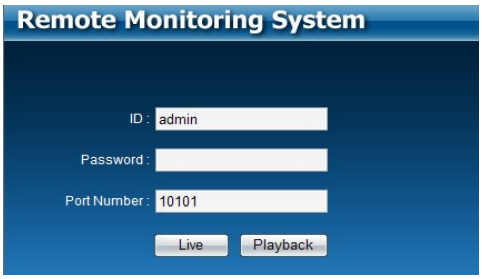
Ex) Web port is 80(Default value) – http://hostname.autoipset.com or 211.104.176.143

Ex) Web port is not the default value – http://hostname.autoipset.com:Web port or

211.104.176.143:Web port Ex) http://hostname.autoipset.com:8080 or

211.104.176.143:8080

Port numbers can be checked at DVR MENU > Network > Address > Port



At the DVR's login page, User should input correct ID, Password, and Port Number in order to use Live or Playback function.

- **ID** : DVR's Administrator ID or User ID (Default ID: admin or user)
- **Password** : DVR's Password for administrator or user (Default Password : **"1111"**)
- **Port Number** : DVR's Port Number (Default Value : 10101)

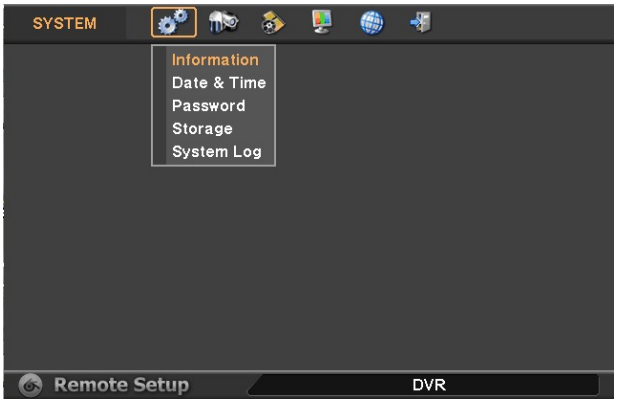
*If you need more information about Port Number, please check the following manual section. - "3-5-1. MENU > Network > Address > Port "

- **Live** : Live Web Monitoring
- **Playback** : Search and Play the DVR's recorded data

4-2. Live

Users can access the Live Web Monitoring and DVR's configuration

- : One Channel View Mode.
- : Change the display channel at One Channel View Mode.
- : Quad View Mode.
- : Full screen View Mode.
- **Setup**: Changed the DVR configuration.(Only for administrator)



4-3. Playback

User can search and play the DVR's recorded data.

- **Playback Icon**

: Backward High-Speed Play(X2, 4, 8, 16, 32)

: Backward Play

: Forward High-Speed Play(X2, 4, 8, 16, 32)

: Forward Play

: Jump to the beginning of data at the selected date

: Backward Play by one frame

: Jump to the end of data at the selected date

: Forward Play by one frame

: Pause

4-3-1. Calendar Search

User can select a specific time to search for the recorded data at the calendar.

As you see the picture, date marked as red color if there is recorded data on the calendar. In addition, selected date marked as yellow color.

, : Change month / year

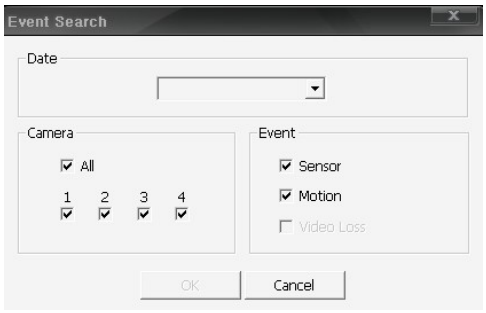
: Search data by inputting specific time.

: Refresh the DVR's recorded data information.

4-3-2. EVENT Search

User can search recorded events data through the Event Search function.

Event Search window will be come up if user clicks the Event Search button, then user should select the date and click ok button. Now, you can select any event that you want to check on the Event list.



, : Change the Event List pages

: Event Search again with different date

Note: Web viewer may not display videos properly if user use low performance video cards, especially on-board type.

APPENDIX A. - DDNS

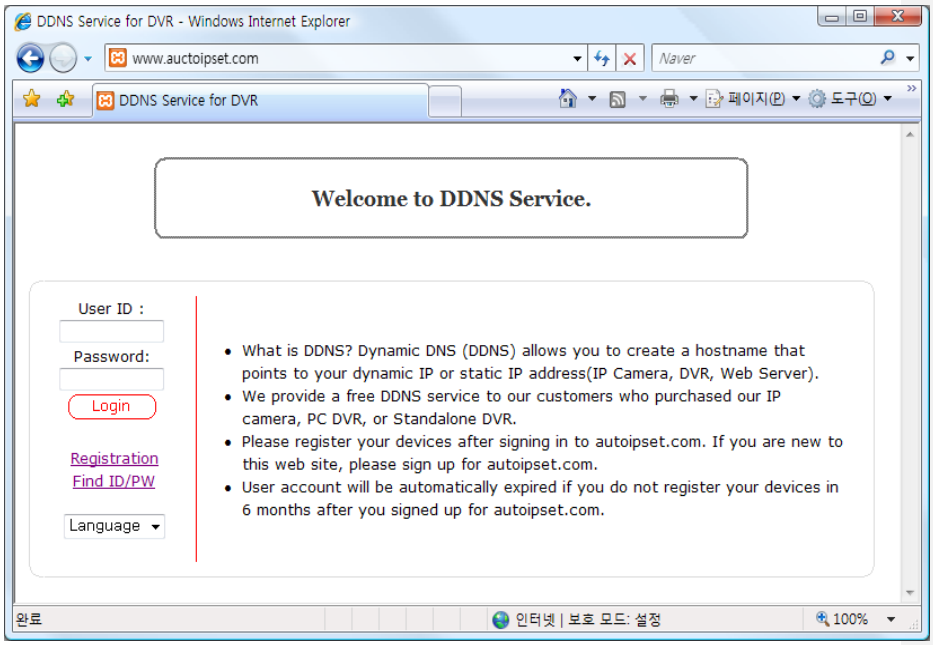
1. DDNS(Dynamic Domain Name Server)

Dynamic DNS (DDNS) allows you to create a hostname that points to your dynamic IP or static IP address (IP Camera, DVR, and Web Server). We also provide an update mechanism which makes the hostname work with your dynamic IP address of DVR. You can use DDNS service after signing up for autoipset.com or without signing up process.

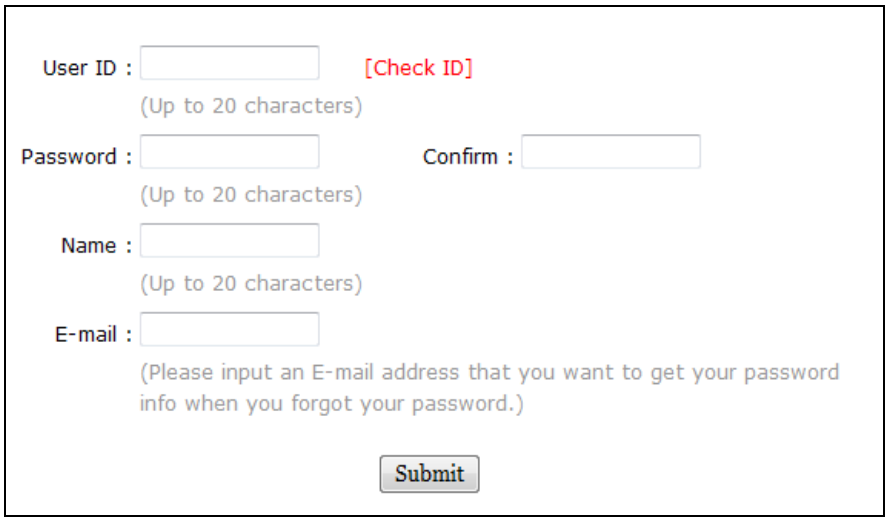
1-1. Use DDNS service after signing up for autoipset.com

1. Sign up for autoipset.com

Please run Internet Explorer program, and then please type http://www.autoipset.com at Internet Explorer's address bar. You will see the web page for DDNS service like below.


DDNS Service for DVR - Windows Internet Explorer
www.auctoipset.com
Naver
DDNS Service for DVR
페이지(P)
도구(O)
Welcome to DDNS Service.
User ID :
Password:
Login
Registration
Find ID/PW
Language
What is DDNS? Dynamic DNS (DDNS) allows you to create a hostname that points to your dynamic IP or static IP address(IP Camera, DVR, Web Server).
We provide a free DDNS service to our customers who purchased our IP camera, PC DVR, or Standalone DVR.
Please register your devices after signing in to autoipset.com. If you are new to this web site, please sign up for autoipset.com.
User account will be automatically expired if you do not register your devices in 6 months after you signed up for autoipset.com.
완료
인터넷 | 보호 모드: 설정
100%

Please click "Registration" in order to sign up for autoipset.com.

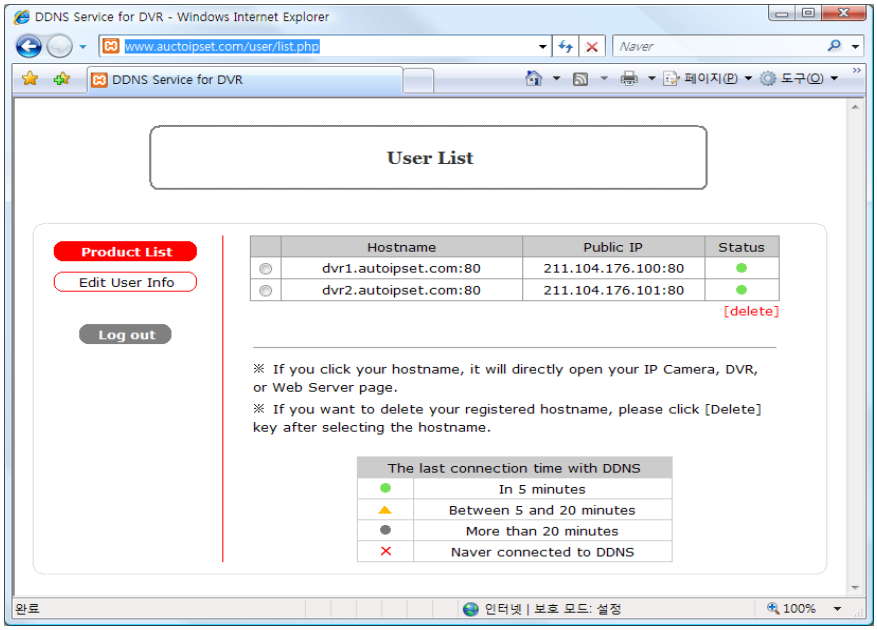

User ID :
[Check ID]
(Up to 20 characters)
Password :
Confirm :
(Up to 20 characters)
Name :
(Up to 20 characters)
E-mail :
(Please input an E-mail address that you want to get your password info when you forgot your password.)
Submit

Please fill up the blank with correct information, and then click submit button. You should check the duplication of your user ID by clicking “Check ID” before submission.

2. Log in

Please log in with your ID and Password.

After you log in, you can see the list of your registered DVR like below at the product list.


DDNS Service for DVR - Windows Internet Explorer
www.auctoipset.com/user/list.php
DDNS Service for DVR
User List
Product List
Edit User Info
Log out
Hostname
Public IP
Status
dvr1.autoipset.com:80
211.104.176.100:80
dvr2.autoipset.com:80
211.104.176.101:80
[delete]
※ If you click your hostname, it will directly open your IP Camera, DVR, or Web Server page.
※ If you want to delete your registered hostname, please click [Delete] key after selecting the hostname.
The last connection time with DDNS
In 5 minutes
Between 5 and 20 minutes
More than 20 minutes
Naver connected to DDNS

3. DDNS registration

Please select DDNS menu at your DVR with the following route.
DVR > MENU > NETWORK > DDNS

First, please input a hostname that you want to use, and then please select the check box for Use ID.
Next, please input ID and Password that you registered at autoipset.com, and then please click “Update” button. Finally, if you see the message, “DDNS: Succeeded in updating”, then all the registration process is done.

4. DDNS Management

Status	Specification
●	Elapsed time since last update is Less than 5 minutes
▲	Elapsed time since last update is more than 5 minutes and less than 20 minutes
●	Elapsed time since last update is more than 20 minutes
✕	No update history

5. Delete the registered DDNS

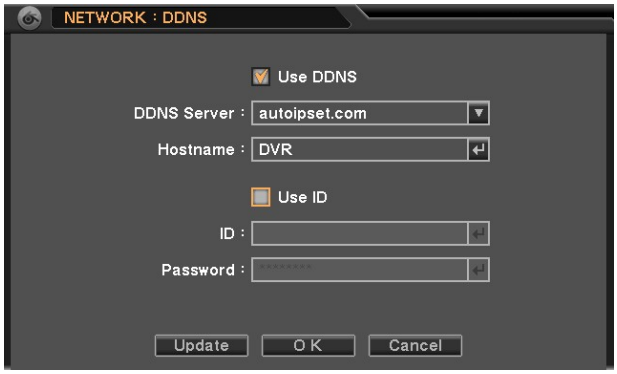
	Hostname	Public IP	Status
◉	dvr1.autoipset.com:80	211.104.176.100:80	●
○	dvr2.autoipset.com:80	211.104.176.101:80	●

[delete]

Please select the DVR DDNS that you want to delete, and then click “Delete” button.

1-2.Use DDNS without signing up for autoipset.com

Please select DDNS menu at your DVR with the following route.
DVR > MENU > NETWORK > DDNS



Please input a hostname that you want to use, and then please click “Update” button. If you see the message, “DDNS: Succeeded in updating”, then all the registration process is done.

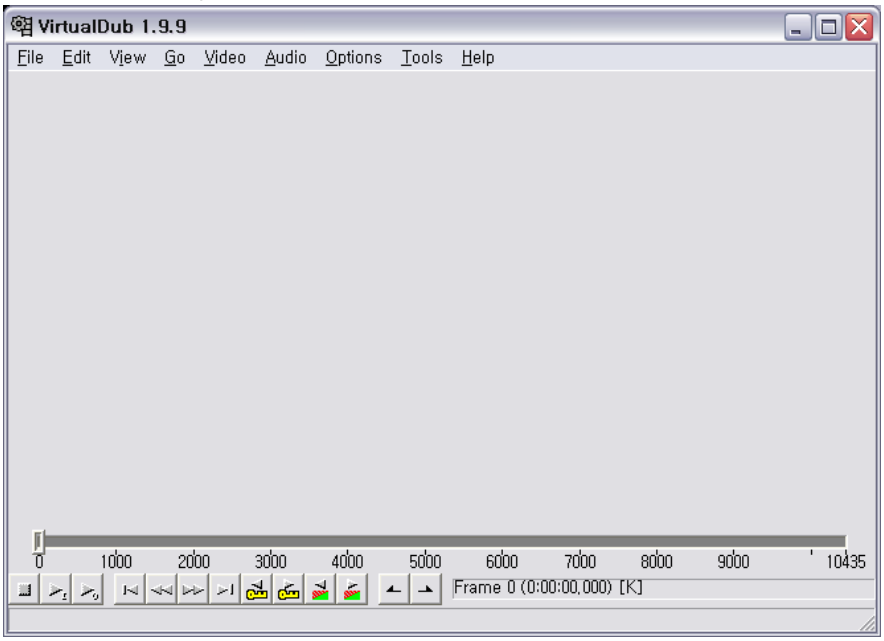
Appendix B. - How to Make Digital Signage Data

The data should be named in the format like ‘filename_0001’, ‘filename_0002’
And the file resolution should be 704x480 for NTSC and 704x576 for PAL. The image size per picture should be less than 256KB.

If set Digital Signage Interval as “Video”, it will display the video by 15ips. To make a Video Digital Signage data (Image Sequence), please refer to below instructions.

1. Install Program and Codec

Freeware Video Editor program is required. Please download the VirtualDub program from http://virtualdub.sourceforge.net/. Open and run VirtualDub.exe program. It does not require additional installation process.

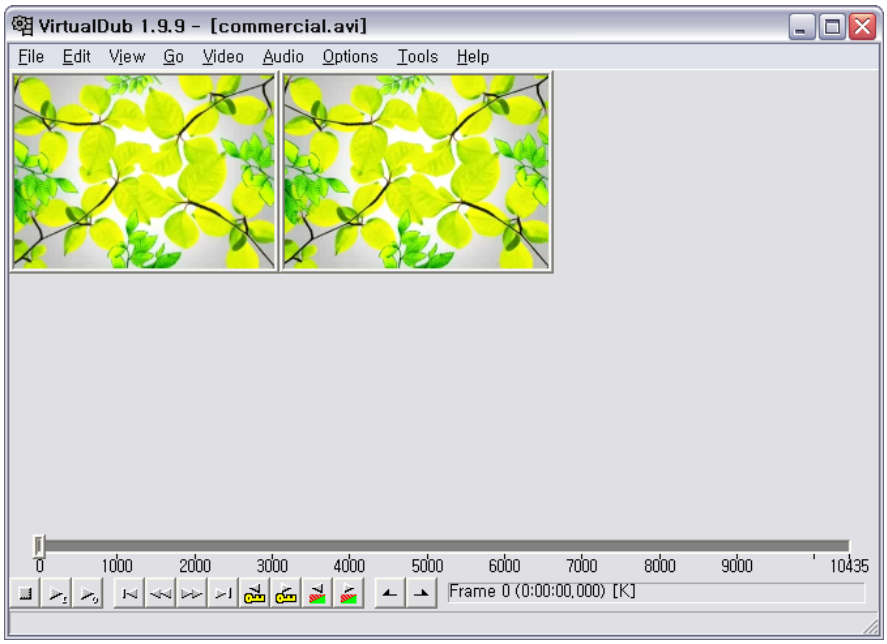

VirtualDub 1.9.9
File Edit View Go Video Audio Options Tools Help
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10435
Frame 0 (0:00:00.000) [K]

VirtualDub use VFW(Video for Windows) compatible codec so some video files can not be used with. To use various type of video files you need to install full version includes VFW codec from http://www.codecguide.com/download_kl.htm.

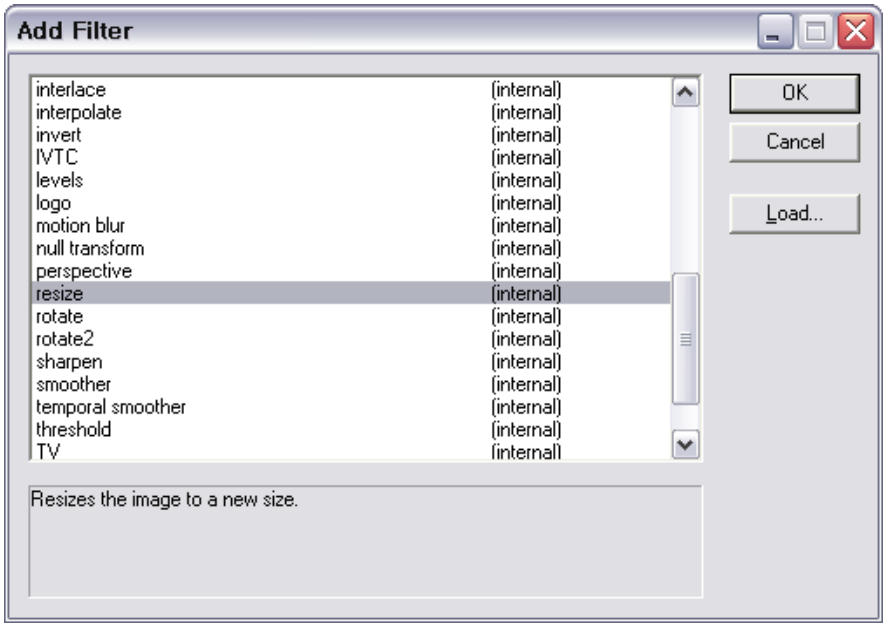
Note: VirtualDub requires a Video for Windows(VFW) compatible codec to decompress video. DirectShow codecs, such as those used by Windows Media Player, are not suitable.

2. Making Image Sequence

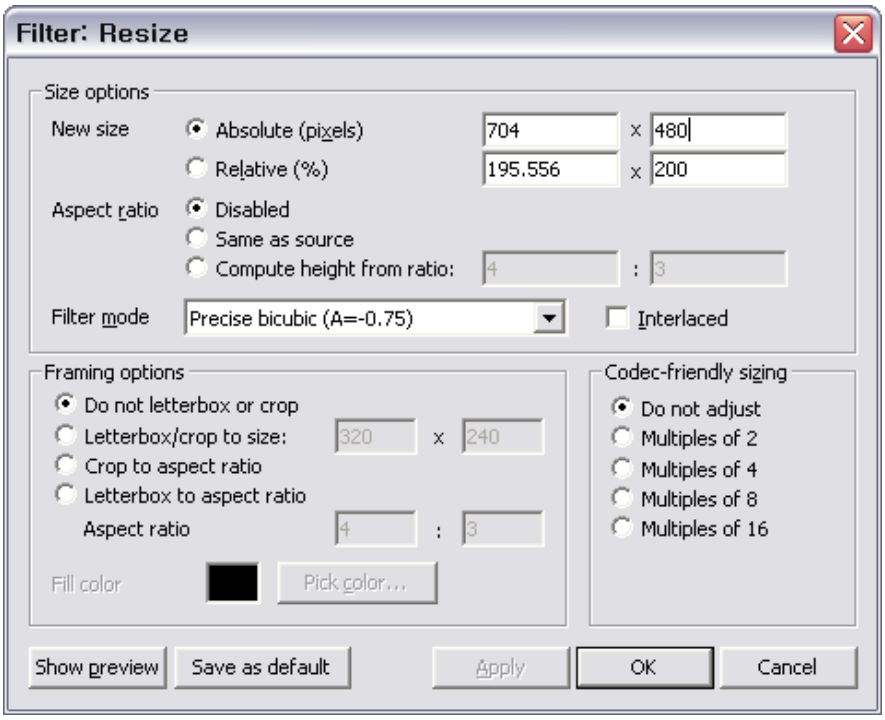
Click File > Open video file... to open video file for editing. E.g. open commercial.avi which is 360x240 size advertisement video file for Digital Signage.


VirtualDub 1.9.9 - [commercial.avi]
File Edit View Go Video Audio Options Tools Help
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10435
Frame 0 (0:00:00.000) [K]

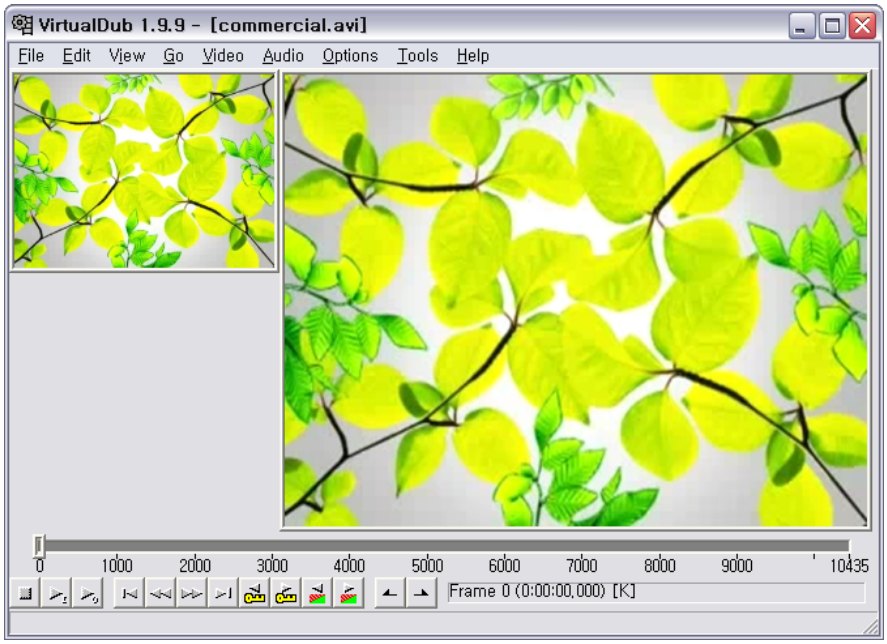
To control the video size, click Video > Filters...> Add and it will open the window as shown below. Select “resize” from the list and click OK.



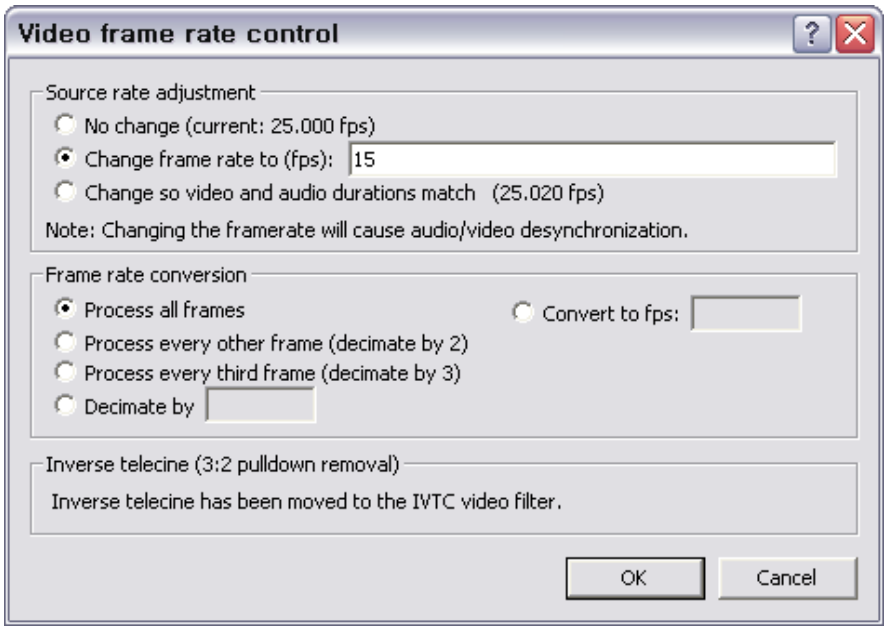
First, select Aspect Ratio as ‘disabled’, and select Absolute for New size. Change resolution to 704x480 (704x576 for PAL) and click OK



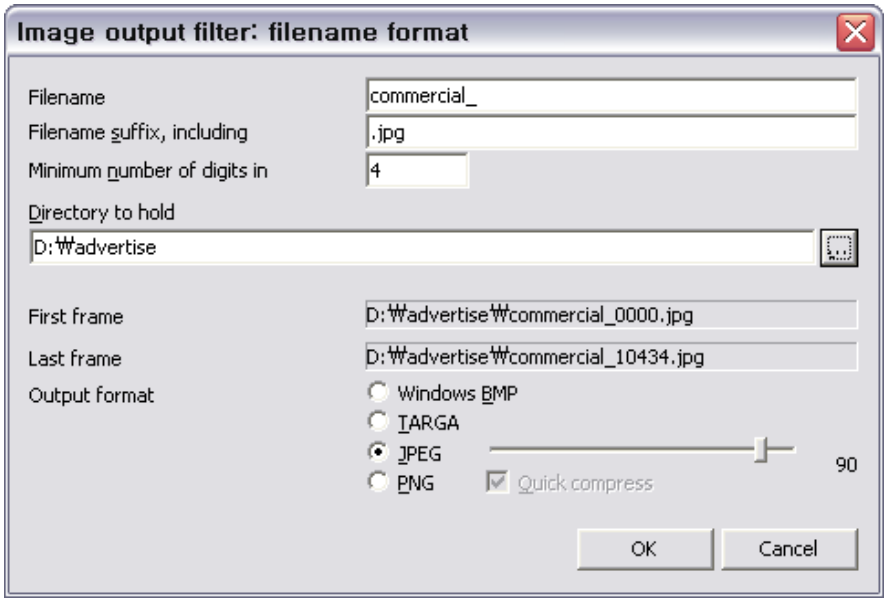
The Filtered file size will be enlarged as shown below.



Select frame rate next. Click Video > Frame Rate... and enter the frame rate (15fps) and click OK.


Video frame rate control
Source rate adjustment
No change (current: 25.000 fps)
Change frame rate to (fps): 15
Change so video and audio durations match (25.020 fps)
Note: Changing the framerate will cause audio/video desynchronization.
Frame rate conversion
Process all frames
Convert to fps:
Process every other frame (decimate by 2)
Process every third frame (decimate by 3)
Decimate by
Inverse telecine (3:2 pulldown removal)
Inverse telecine has been moved to the IVTC video filter.
OK
Cancel

Select File > Export > Image Sequence.. and it will open window as show below. Enter the file name. The file name should be 'filename_0001' (e.g.) format. Create a folder by name of 'advertise' and same the files in that folder in USB flash memory. Files must be saved in the folder and the folder name should be 'advertise'. DVR will not recognize any other folder names.



Once it is done, connect USB flash memory to DVR and follow Digital Signage instructions (Import) to use Digital Signage features.

COMPLIANCE NOTICE OF FCC:

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE, IN WHICH CASE USERS WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT THEIR OWN EXPENSE.

WARNING: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.
THIS CLASS OF DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

WEEE (Waste Electrical & Electronic Equipment)

Correct Disposal of This Product (Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

ROHS Compliance